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ABSTRACT

This program evaluation report of 1968-69 Title I ESEA activity in Cincinnati Public Schools is a survey of a number of global measures of the characteristics of pupils, parents, and school personnel in target schools. Measurements reported do not focus on pupils served directly by the program, but on the impact on a larger scale on the total educational program of the schools identified as Title I targets. The program evaluation conclusions were as follows: (1) the high mobility of project students frustrated most long-range longitudinal studies; (2) the task of adequate design controls and control groups, or control groups, made many of the results uncertain at best; (3) the success in meeting behavioral objectives was confused by lack of adequate comparison data; (4) questions of funding jumbled the planning of the program development committees; and, (5) conflict of "hard statistics" and "testimony" as to the relative success of the program could not satisfactorily resolve the question of realistic objectives and comparative success. Extensive data tables are included. (RJ)

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TITLE I, ESEA PROGRAM EVALUATION, 1968-69

February, 1970

DEPARTMENT OF EDUCATIONAL PROGRAM

Cincinnati Public Schools

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Division of Program Research and Design

TO LEARN ABOUT CHILDREN, THAT CHILDREN MAY LEARN

PREFACE

In this issue of the Journal, the first in a new volume, we present the Program Evaluation Report of 1968-69 Title I, ESEA, activity in the Cincinnati Public Schools. This is the fourth annual attempt to look at a number of global measures of the characteristics of pupils, parents, and school personnel in target schools. As in previous years the measurements reported here do not focus on pupils served directly by the program. Rather, this report is concerned with impact of a larger scale on the total educational program of the schools identified as Title I targets.

Some consistency in the measurements taken is essential if comparisons are to be made from year to year. Thus, the basic structure of this report is very nearly identical to that of each of the three prior reports. With each year, however, the need to add a measure of originality in looking at Program Evaluation Data has become more obvious. The report contained in this journal seems to have an ideal balance between these essential ingredients of consistency and originality.

This report is the product of the untiring efforts of Mr. David Biegen and Mr. Ronald Nieman, Associates in Program Research and Design. But to say that these two men have worked hard to produce the report is to tell only half the story. In addition to the diligence with which they have pursued the task, the writers of this report have contributed an insightful analysis of the data, some new perspectives in interpretation, and a number of very provocative questions about the implications of their findings for Title I policy and practice.

Analysis of the 1968-69 data has been enhanced by the sophistication in computer technology and statistical methods that the Title I evaluators have brought to the task. Their work has been further advanced by the

generous assistance of the Hamilton County Regional Computer Center. The Cincinnati school system is grateful to Mr. Andrew Atkinson and his staff for their help.

Joseph L. Felix, Editor

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CHAPTER 1

INTRODUCTION

This is the first of three issues of Volume 5 devoted to evaluation of the Title I, ESEA, program operating in Cincinnati target schools in the 1968-69 school year. This first issue is concerned with program evaluation. Its primary purpose is to assess the gross impact of Title I services, rather than to look critically at specific projects of services and their target populations.

The second issue in this volume will be devoted to project evaluation. In that report, attention will be focused on the objectives of each of the five Title I projects in operation in 1968-69. The evidence reported will be based on measurement of the specific pupils served by component services of each project. Measurement of non-project pupils will be included only for comparison purposes.

The third issue of the series will be an addition to the structure of Title I evaluation as conducted in past years. Other kinds of information, collected on a school unit basis, will be presented and analyzed. This supplementary information, although collected primarily for Title I evaluation, represents the beginnings of a total school management information system for the Cincinnati schools.

The current journal issue, then, is merely the first of three discrete reports attempting to uncover meaningful evidence of how effective Title I services have been. Throughout this Journal the reader must bear in mind that the group of children whom the Title I programs service is not representative of any average group. By definition a project student must not only be a member of a disadvantaged community, but he must also be among the most educationally disadvantaged of that community. He is typically

the youngster whose economic, physical, emotional, and/or scholastic history is marginal.

We have been conservative both in our methods of analysis and in our interpretation of the data generated by the analyses. We have made no claims that our Title I programs have cured the ills of the ghetto. What we are suggesting, however, is that the reader consider the possibility that findings of no significant difference in attitude and/or achievement between project and non-project students represent real gains for the project student. This is especially likely when current measurements only, rather than changes, are being compared. Humanitarian feelings that all of those children who need special attention should receive as much as possible; pre vent us from creating a control group of project students who would not be given the eligible treatments. Nevertheless, it should be apparent to even the most skeptical that no significant differences between the lowest group and the average indicates a remarkable improvement for the lowest one.

Much of the detailed background information concerning these measurements was eliminated from this edition of the Journal. The reader may wish to refer to Volume 4, Number 5 for a fuller description of the history and rationale of each type of measurement.

As program evaluation, this report is concerned with overall school progress and the effects of all Title I services on target school staff members and pupils. The evaluation of specific projects within our Title I program will be contained in a later edition of the Journal. So that the reader may be better oriented, however, a list of the various projects, target schools, and control schools is provided on the next page.

PROJECTS

Code	Project
47	Elementary School: Growth in Academic Performance
46	Secondary School Guidance, Remediation and Enrichment
43	Emotional, Learning and Communication Problems
42	Physical Health Services
41	Early Childhood Education

TARGET SCHOOLS

Senior High

Robert A. Taft

Junior High

Bloom
Cutter
Porter

Elementary

Garfield
Hays

Elementary cont'd.

* Heberle
Millvale Primary
* Morgan
* Mt. Adams
Peaslee
Rothenberg
* Sands
Sixth District
South Avondale
* Vine
Wm. H. Taft
Washburn
Washington Park
Webster
Windsor

CONTROL SCHOOLS

Junior High

Ach
Heinold
Sawyer

Elementary

Burdett
Burton
Columbian
Cummins
Douglass
Fairview
Hoffman
N. Fairmount
Rockdale
Schiel
Washington
Winton Place
Winton Terrace

* These schools became (primary) target schools at the start of the 1967-68 school year.

CHAPTER 2

TEACHER SURVEY: A PREVIEW

We defined:

(1) the scale utilized;

(2) the background of the scale and the data reduction procedure;

(3) Target, ST-T, and Control school groups;

(4) four consecutive years of scale responses for Target and Control school respondents in elementary and secondary schools;

(5) factors limiting the generalizability of findings.

We found:

(1) among Target schools two factors showed noticeable increases: Special Education Needs and Library Resources;

(2) slight overall increase in favorable responses relating to 1966 baseline responses. The largest decrease in favorable responses came from Secondary Target school respondents;

(3) for all groups the lowest rated items continue to be those concerning provisions for emotionally and socially disturbed children.

CHAPTER 2

TEACHER SURVEY, 1968-69

DESCRIPTION

The morale, attitudes, and opinions of the teachers in a school system have overwhelming implications for judging the effectiveness of the educational program.

One method we have of assessing the feelings of the professional staff is a locally developed opinion survey that has been used, with only minor revisions (a core of 42 items has remained constant), since 1966. It must be kept in mind throughout this discussion of the survey, however, that we are not as much interested in the validity of the teachers' ratings of the school system as we are in the reflection of their attitudes towards their school and pupils.

The Teacher Survey is designed to elicit evaluative ratings, ranging from 1 (Poor) to 4 (Neutral) to 7 (Good), on 50 items covering a wide variety of concepts and services relating to school, its environment, and its pupils. The survey was administered to teachers in all schools in the Cincinnati public school system. The respondents remain anonymous, but they do indicate their school, their sex, and the grade level at which they teach.

BACKGROUND

The general hypothesis tested is that a comparison of teachers' opinions in target schools with those in similar non-target schools will show that target school teachers show positive attitude changes, which provide a better framework for the educational process. Although we may infer that such changes mean that the expenditure of Title I funds has helped to improve teacher attitude in those schools receiving financial assistance, we cannot prove that such a cause and effect relationship exists. It should

be noted, also, that we could not reasonably expect to have a continuous year-by-year increase; defeats of local tax levies, internal power struggles of teacher organizations, and typical big-city strife are but a few factors that will preclude any hope of consistent long-range, linear gains. We can, nevertheless, expect that in any given year, target schools will indicate a significant positive difference when compared with similar non-target schools.

METHOD OF ANALYSIS

The Teacher Survey was factor analyzed in 1966, using a principal components analysis followed by the varimax procedure. The identical factor pattern was retained for this and all other, previous analyses. The eight factor constellation listed in Tables 1 and 2 was selected as most representative.

Under the varimax procedure each factor is identified in order of the amount of variance being accounted for by that rotation. In the Teacher Survey, we note from the weighted sum of the communalities that just over half the units of variance are accounted by the eight factors together. Factor I (Morale) accounts for 18 per cent of the total variance. Each of the remaining seven factors accounts for less than 10 per cent of the total variance. Psychologically, under the varimax procedure, there is no guarantee the derive factors are orthogonal i.e., independent. One would therefore expect some overlap on factors. Conclusions based on these data will therefore be considered tentative.

For our present purposes it is felt that the most appropriate method of presentation is to use overall tables of factor and item means and variances along with graphs depicting factors by groups, across years.

In the following section references will be made to three groups of

Table 1. Mean Teacher Survey Ratings, ELEMENTARY LEVEL, by School Group, Year, Factor, and Item.

FACTOR / Item	N=	TARGET SCHOOLS 1966 (337)	1967 (391)	1968 (345)	1969 (472)	Net Change	CONTROL SCHOOLS 1966 (180)	1967 (208)	1968 (190)	1969 (378)	Net Change
FACTOR 1: MORALE											
- Staff morale		4.88	4.89	4.41	4.73	- .15	4.44	4.85	4.67	4.69	+ .25
- Professional cooperation among school staff		5.24	5.25	4.96	5.15	- .09	5.11	5.49	5.08	4.94	- .17
- Teacher/Administration cooperation		5.32	5.50	5.20	5.37	+ .05	4.93	5.36	5.39	5.32	+ .39
- Teaching in my school		5.42	5.53	5.19	5.36	- .06	5.36	5.56	5.40	5.30	- .06
- Pupil/Faculty relations		4.90	5.02	4.60	4.87	- .03	4.74	5.05	4.96	4.85	+ .11
FACTOR AVERAGE		5.15	5.24	4.87	5.10	- .05	4.92	5.26	5.10	5.02	+ .10
FACTOR 2: SPECIAL EDUCATION NEEDS											
- Provision for emotionally disturbed child		2.51	3.08	2.35	2.55	+ .04	2.82	3.23	2.31	2.12	- .70
- Provision for socially maladjusted child		2.51	3.07	2.42	2.74	+ .23	2.75	3.12	2.47	2.34	- .41
- Provision for physically handicapped child		3.29	3.34	3.04	3.18	- .11	2.60	3.06	2.90	2.72	+ .12
- Curriculum for disadvantaged		4.23	4.51	3.56	3.94	- .29	3.52	4.13	3.38	3.27	- .25
- Provision for pupil welfare needs		4.97	5.07	4.43	5.12	+ .15	4.46	4.87	4.53	4.69	+ .23
FACTOR AVERAGE		3.50	3.81	3.16	3.51	+ .01	3.23	3.68	3.12	3.03	- .20
FACTOR 3: PUPIL-PARENT CHARACTERISTICS											
- Pupil aspiration level		3.50	3.49	3.31	3.62	+ .12	3.98	3.65	3.62	3.58	- .40
- Parent participation in school		2.93	2.95	2.33	2.82	- .11	2.41	2.85	2.45	2.61	+ .20
- Achievement of pupils		4.00	3.79	3.38	3.78	- .22	3.55	3.56	3.72	3.68	+ .13
- Supportive attitude of parents		3.71	3.44	3.09	3.47	- .24	3.10	3.66	3.50	3.27	+ .17
- Type of pupils I teach		3.57	3.40	3.29	3.61	+ .04	3.10	3.33	3.42	3.81	+ .71
- Pupil image of self		3.43	3.54	3.18	3.59	+ .16	3.02	3.64	3.61	3.59	+ .57
- School attendance of pupils		4.38	4.20	4.16	4.27	- .11	3.96	4.32	4.27	4.20	+ .24
- Overall health level of pupils		3.99	4.07	4.00	4.11	+ .12	3.82	4.77	4.33	4.25	+ .43
- Motivation of my pupils		4.45	4.45	4.03	4.35	- .10	4.12	4.78	4.24	4.00	- .12
- Behavior standards of my pupils		4.05	3.76	3.58	3.85	- .20	3.86	3.69	4.08	3.71	- .15
- Previous academic preparation of pupils		3.56	3.56	3.06	3.62	+ .06	3.40	3.90	3.60	3.45	+ .05
- Degree of tardiness		4.03	4.07	3.91	4.03	--	3.92	3.89	4.03	3.94	+ .02
- Pupil discipline		3.89	4.00	3.63	3.86	- .03	3.62	3.88	4.13	3.83	+ .21
- Provision for pupils' cultural growth		4.52	4.56	3.96	4.16	- .36	3.46	4.70	4.07	3.94	+ .48
- Provision to challenge able learner		4.25	4.41	3.96	4.08	- .17	3.76	4.65	4.46	4.28	+ .52
FACTOR AVERAGE		3.88	3.85	3.52	3.81	- .07	3.54	3.95	3.84	3.74	+ .20

Continued

Table 1. Mean Teacher Survey Ratings, ELEMENTARY LEVEL, by School Group, Year, Factor, and Item.

FACTOR / Item	N=	TARGET SCHOOLS 1966 (337)	1967 (391)	1968 (345)	1969 (472)	Net Change	CONTROL SCHOOLS 1966 (180)	1967 (208)	1968 (190)	1969 (378)	Net Change
FACTOR 4: CONDITIONS FOR INSTRUCTION											
- Teacher time to plan		3.30	3.25	2.97	3.42	+ .12	2.93	3.21	2.71	2.90	- .03
- Size of my class(es)		4.23	5.14	4.30	5.10	+ .87	4.01	5.01	4.72	4.64	+ .63
- Time to teach		4.65	4.85	4.36	4.67	+ .02	4.02	4.58	4.30	4.44	+ .42
- Provision for academic remediation		4.40	4.98	4.27	4.12	- .28	3.89	4.33	3.61	3.44	- .45
FACTOR AVERAGE		4.15	4.56	3.98	4.33	+ .18	3.71	4.28	3.84	3.86	+ .15
FACTOR 5: IMPROVING SCHOOL PROGRAM											
- Provision for visiting teacher services		4.72	4.84	4.36	4.45	- .27	5.23	5.22	4.57	4.33	- .90
- Provision for supervisory personnel		5.01	5.09	4.75	4.63	- .38	5.11	5.26	4.92	4.65	- .46
- In-service training		4.89	5.01	4.65	4.55	- .34	4.75	5.05	4.56	4.27	- .48
- School's provision for pupil health		4.96	5.20	4.08	4.40	- .56	4.83	5.68	4.77	4.15	- .68
- Adequacy of enrichment activities		4.93	5.26	4.69	4.45	- .48	3.95	4.93	4.53	4.03	+ .08
- Help in disciplinary problems		4.72	5.00	4.62	4.91	+ .19	4.32	5.47	5.25	4.97	+ .65
- Adequacy of instructional media		4.98	5.38	5.04	4.91	- .07	4.43	5.24	4.93	4.42	- .01
FACTOR AVERAGE		4.89	5.11	4.60	4.61	- .28	4.66	5.26	4.79	4.40	- .26
FACTOR 6: LIBRARY RESOURCES											
- Adequacy of school library		3.85	5.98	5.98	5.76	+1.91	2.96	5.91	6.25	5.90	+2.94
- Availability of professional reading matter		4.80	5.79	5.66	5.50	+ .70	4.05	5.78	5.71	5.29	+1.24
FACTOR AVERAGE		4.33	5.89	5.82	5.63	+1.30	3.51	5.85	5.98	5.60	+2.09
FACTOR 7: BOOKS & SUPPLIES											
- Adequacy of supplies		5.33	5.57	5.42	5.00	- .33	4.64	4.65	5.15	4.66	+ .02
- Books available to my class		5.01	5.59	5.32	5.31	+ .30	4.01	5.01	4.72	5.12	+1.11
FACTOR AVERAGE		5.17	5.58	5.37	5.16	- .01	4.33	4.83	4.94	4.89	+ .56
FACTOR 8: SCHOOL PLANT											
- Adequacy of school playground		3.51	3.75	3.27	3.58	+ .07	3.39	3.75	4.14	3.82	+ .43
- Adequacy of school building		4.26	4.69	4.29	4.42	+ .16	3.78	4.66	4.58	4.11	+ .33
FACTOR AVERAGE		3.89	4.22	3.78	4.00	+ .11	3.59	4.21	4.36	3.97	+ .38
TOTAL SURVEY AVERAGE		4.26	4.48	4.07	4.27	+ .01	3.91	4.47	4.24	4.08	+ .17

Table 2. Mean Teacher Survey Ratings, SECONDARY LEVEL, by School Group, Year, Factor, and Item.

FACTOR / Item	N=	TARGET SCHOOLS 1966 (215)	1967 (190)	1968 (184)	1969 (231)	Net Change	CONTROL SCHOOLS 1966 (145)	1967 (139)	1968 (127)	1969 (132)	Net Change
FACTOR 1: MORALE											
- Staff morale		5.12	4.94	4.21	3.67	-1.45	5.06	4.73	4.97	4.80	- .26
- Professional cooperation among school staff		5.42	5.26	4.69	4.04	-1.38	5.52	5.12	5.19	5.15	- .37
- Teacher/Administration cooperation		5.55	5.40	4.93	4.53	-1.02	5.30	5.51	5.69	5.41	+ .11
- Teaching in my school		5.32	5.38	5.00	4.54	- .78	5.21	5.21	5.21	4.89	- .32
- Pupil/Faculty relations		4.99	4.83	4.85	4.08	- .91	4.48	4.66	4.83	4.77	+ .29
FACTOR AVERAGE		5.28	5.16	4.74	4.17	-1.11	5.11	5.06	5.18	5.00	- .11
FACTOR 2: SPECIAL EDUCATION NEEDS											
- Provision for emotionally disturbed child		3.08	2.95	2.36	2.28	- .80	2.11	2.42	2.58	2.26	+ .15
- Provision for socially maladjusted child		3.17	3.15	2.55	2.45	- .72	2.10	2.47	2.76	2.36	+ .26
- Provision for physically handicapped child		3.35	3.44	3.15	3.02	- .33	2.60	2.81	3.04	2.83	+ .23
- Curriculum for disadvantaged		4.44	4.35	3.65	3.44	-1.00	3.27	3.71	3.48	3.40	+ .13
- Provision for pupil welfare needs		5.33	5.29	4.17	3.97	-1.36	4.76	4.76	4.31	4.45	- .31
FACTOR AVERAGE		3.87	3.84	3.18	3.03	- .84	2.97	3.23	3.23	3.06	+ .09
FACTOR 3: PUPIL-PARENT CHARACTERISTICS											
- Pupil aspiration level		3.15	3.23	3.08	3.13	- .02	2.74	3.35	3.37	3.41	+ .67
- Parent participation in school		2.00	2.06	1.91	2.12	+ .12	2.25	2.83	2.23	2.59	+ .34
- Achievement of pupils		3.67	3.60	3.40	3.35	- .32	3.37	3.50	3.85	3.61	+ .24
- Supportive attitude of parents		2.95	2.97	2.90	2.90	- .05	3.19	3.69	3.45	3.38	+ .19
- Type of pupils I teach		3.49	3.38	3.47	3.96	+ .47	3.25	3.73	3.83	3.96	+ .71
- Pupil image of self		3.21	3.11	3.01	3.26	+ .05	2.73	2.94	3.13	3.28	+ .55
- School attendance of pupils		3.15	2.97	2.80	2.43	- .72	3.83	4.18	3.76	3.48	- .35
- Overall health level of pupils		4.00	4.05	4.01	3.97	- .03	4.16	4.55	4.32	4.36	+ .20
- Motivation of my pupils		3.85	3.79	3.50	3.42	- .43	4.07	3.81	3.81	3.78	- .29
- Behavior standards of pupils		3.83	3.69	3.78	3.77	- .06	3.41	3.71	3.77	3.70	+ .29
- Previous academic preparation of pupils		3.13	2.95	2.89	2.99	- .14	2.95	2.97	3.22	3.14	+ .19
- Degree of tardiness		2.96	2.89	2.96	2.77	- .19	3.13	3.55	3.22	2.91	- .22
- Pupil discipline		4.01	3.93	3.84	3.46	- .55	3.20	4.07	4.35	3.77	+ .57
- Provision for pupil cultural growth		4.29	4.19	3.80	3.60	- .69	3.77	4.12	3.90	3.98	+ .21
- Provision to challenge able learner		4.39	3.21	4.08	4.08	- .31	4.09	4.18	4.20	4.10	+ .01
FACTOR AVERAGE		3.47	3.33	3.30	3.28	- .19	3.34	3.68	3.63	3.56	+ .22

Continued

Table 2. Mean Teacher Survey Ratings, SECONDARY LEVEL, by School Group, Year, Factor, and Item.

FACTOR / Item	N=	TARGET SCHOOLS 1966 (215)	1967 (190)	1968 (184)	1969 (231)	Net Change	CONTROL SCHOOLS 1966 (145)	1967 (139)	1968 (127)	1969 (132)	Net Change
FACTOR 4: CONDITIONS FOR INSTRUCTION											
- Teacher time to plan		4.03	3.98	3.78	3.95	- .08	3.77	4.12	3.85	4.48	+ .71
- Size of my class(es)		4.34	4.76	4.77	4.60	+ .26	3.64	4.17	4.16	4.61	+ .97
- Time to teach		4.70	4.69	4.04	3.26	-1.44	4.51	4.74	3.77	4.90	+ .39
- Provision for academic remediation		4.23	4.39	4.35	3.71	- .52	3.66	3.88	3.61	3.35	- .31
FACTOR AVERAGE		4.33	4.46	4.24	3.88	- .45	3.90	4.23	3.85	4.34	+ .44
FACTOR 5: IMPROVING SCHOOL PROGRAM											
- Provision for visiting teacher services		4.59	5.06	4.45	3.54	-1.05	4.55	5.04	4.75	4.37	- .18
- Provision for supervisory personnel		5.19	5.08	4.40	3.99	-1.20	4.64	5.08	4.50	4.33	- .31
- In-service training		4.72	4.99	4.08	3.68	-1.04	4.82	4.63	4.30	3.89	- .93
- Provision for pupil's health		5.61	5.37	4.15	4.06	-1.55	4.85	5.20	4.34	4.37	- .48
- Adequacy of enrichment activities		4.72	4.56	4.28	3.67	-1.05	3.86	4.54	4.05	4.04	+ .18
- Help in disciplinary problems		5.43	5.42	4.76	4.48	- .95	4.52	5.53	5.57	5.21	+ .69
- Adequacy of instructional media		5.08	5.01	4.46	4.15	- .93	4.71	4.77	4.28	4.38	- .33
FACTOR AVERAGE		5.05	5.07	4.37	3.93	-1.12	4.56	4.97	4.54	4.37	- .19
FACTOR 6: LIBRARY RESOURCES											
- Adequacy of school library		4.98	5.07	4.83	4.66	- .32	5.55	5.56	5.13	5.33	- .22
- Availability of professional reading matter		4.97	5.06	4.69	4.22	- .75	6.00	5.30	4.94	4.97	-1.03
FACTOR AVERAGE		4.98	5.07	4.76	4.44	- .54	5.78	5.43	5.04	5.15	- .63
FACTOR 7: BOOKS & SUPPLIES											
- Adequacy of supplies		5.13	5.31	5.15	4.49	- .64	4.94	5.42	4.94	4.66	- .28
- Books available to my class		4.74	4.90	4.60	4.29	- .45	4.49	5.07	4.34	4.72	+ .23
FACTOR AVERAGE		4.94	5.11	4.88	4.39	- .55	4.72	5.25	4.64	4.69	- .03
FACTOR 8: SCHOOL PLANT											
- Adequacy of school playground		3.72	4.02	3.34	3.70	- .02	4.33	4.40	4.49	4.05	- .28
- Adequacy of school building		4.48	4.83	4.30	3.95	- .53	4.70	4.74	4.64	4.59	- .11
FACTOR AVERAGE		4.10	4.43	3.82	3.82	- .28	4.52	4.57	4.57	4.32	- .20
TOTAL SURVEY AVERAGE		4.25	4.25	3.89	3.66	- .59	4.00	4.26	4.10	4.05	+ .05

schools: TARGET, ST->T, and Controls. The differences between these designations are as follows:

Table 3. Designations of Schools

Group Designation	Symbol	Definition
I	TARGET	Since inception of ESEA, Title I, projects have been designated as primary target schools (N=12)
II	ST->T	Originally secondary target but entered target designation in 1967-68 (N=5)
III	Controls	Originally secondary target but since 1967-68 have been non-target schools (N=14)

Appendix A summarizes the means and variances for the eight factors, across four years, within each of the three groups of schools. One might expect that factor means would increase immediately during the first year of the project operation. Indeed, the data show this to be the case. This mean increase, however, is seen in the control schools as well. Possibly, the limited services given to these schools as secondary targets had an enhancing effect on school-community-pupil evaluation.

Most noticeable among the increases in target schools were factors two and six. Factor two is defined as Special Education Needs. Figure 1 summarizes the changes in factor two within groups across years. Four of the five components of this factor are stated as "provisions for...". Under the massive financial and professional-personnel available during the first year of the project many provisions were made for children and groups of children

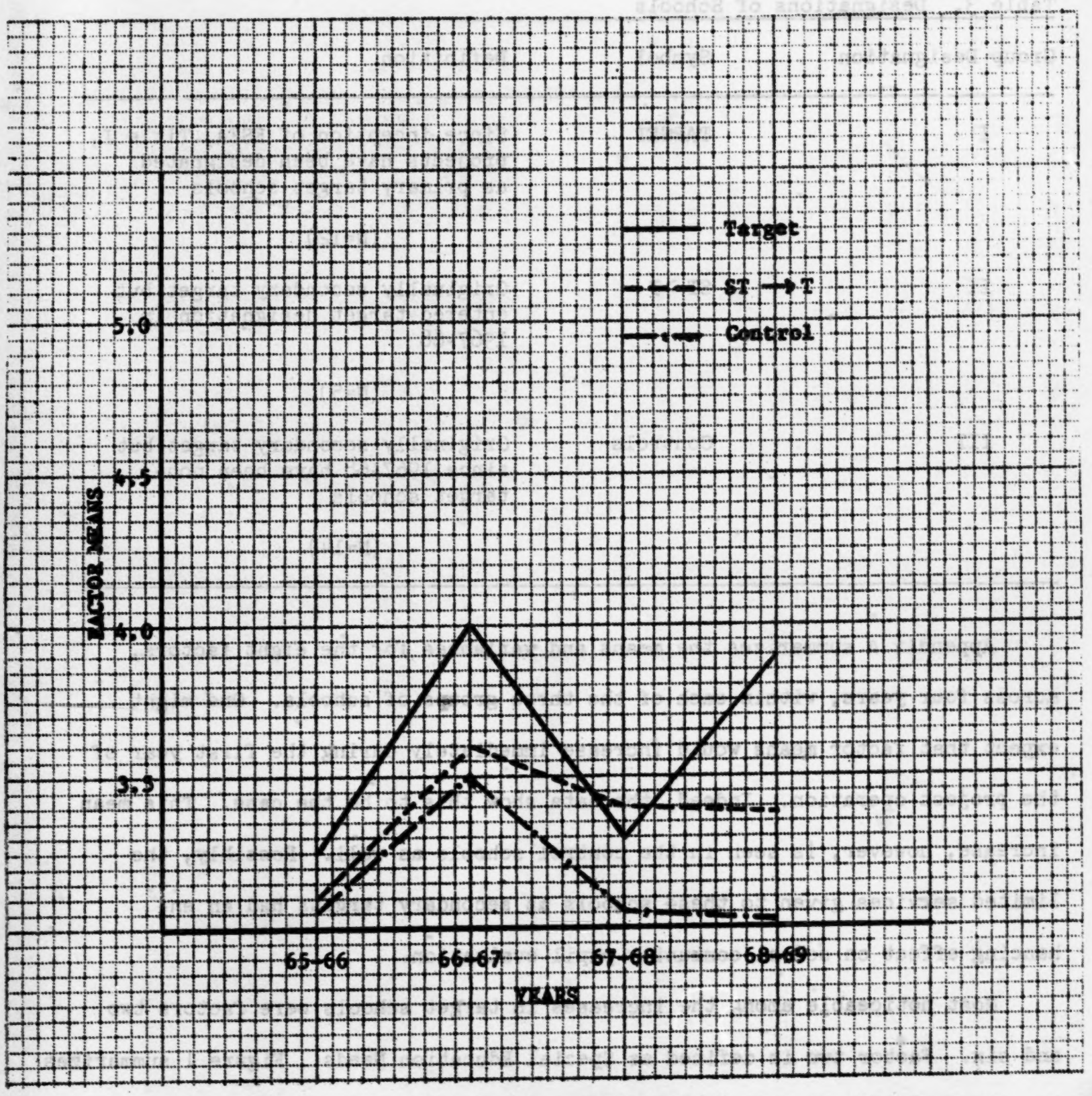

Figure 1. Factor Two (Special Education Needs) From Teacher Survey By Three Groups Across Four Years.

repeatedly identified as in need of special learning situations.

Related to the mean increases for this factor are its relationships with the other recurring factors in the survey, as mentioned earlier. Under the variance rotation there is no guarantee that the defined factors are orthogonal. There is, therefore, some overlap between factors. A glance at the components in factor three (Pupil-Parent Characteristics) gives several obvious examples of this probable non-orthogonal relationship.

Factor six (Library Resources) is summarized in Figure 2, between groups, across years. Following the initial gain for the first project year, the mean levels for this factor have remained relatively high. These early changes reflect the establishment of resource centers in all target, ST->T, and control schools.

RESULTS AND DISCUSSION

Table 1 shows item and factor means among elementary teachers in target and control schools. Results are reported for each of the four years in which the survey was administered. Similar data for the secondary level are reported in Table 2.

Overall, results for the total survey show that elementary target and control, and secondary control schools all continued to show a slight improvement in 1969 over baseline data from 1966, although both elementary and secondary control schools declined a little from 1968. The largest drop (the third in succession) came from secondary target school teachers.

For all groups, the lowest rated items on the survey continue to be those concerning provisions for emotionally and socially disturbed children. The message is quite clear; teachers are obviously and almost unanimously expressing their greatest need: They want help with the student whose attitude is such that it prevents the teacher from teaching as he knows he can when there are no disruptive children in the class.

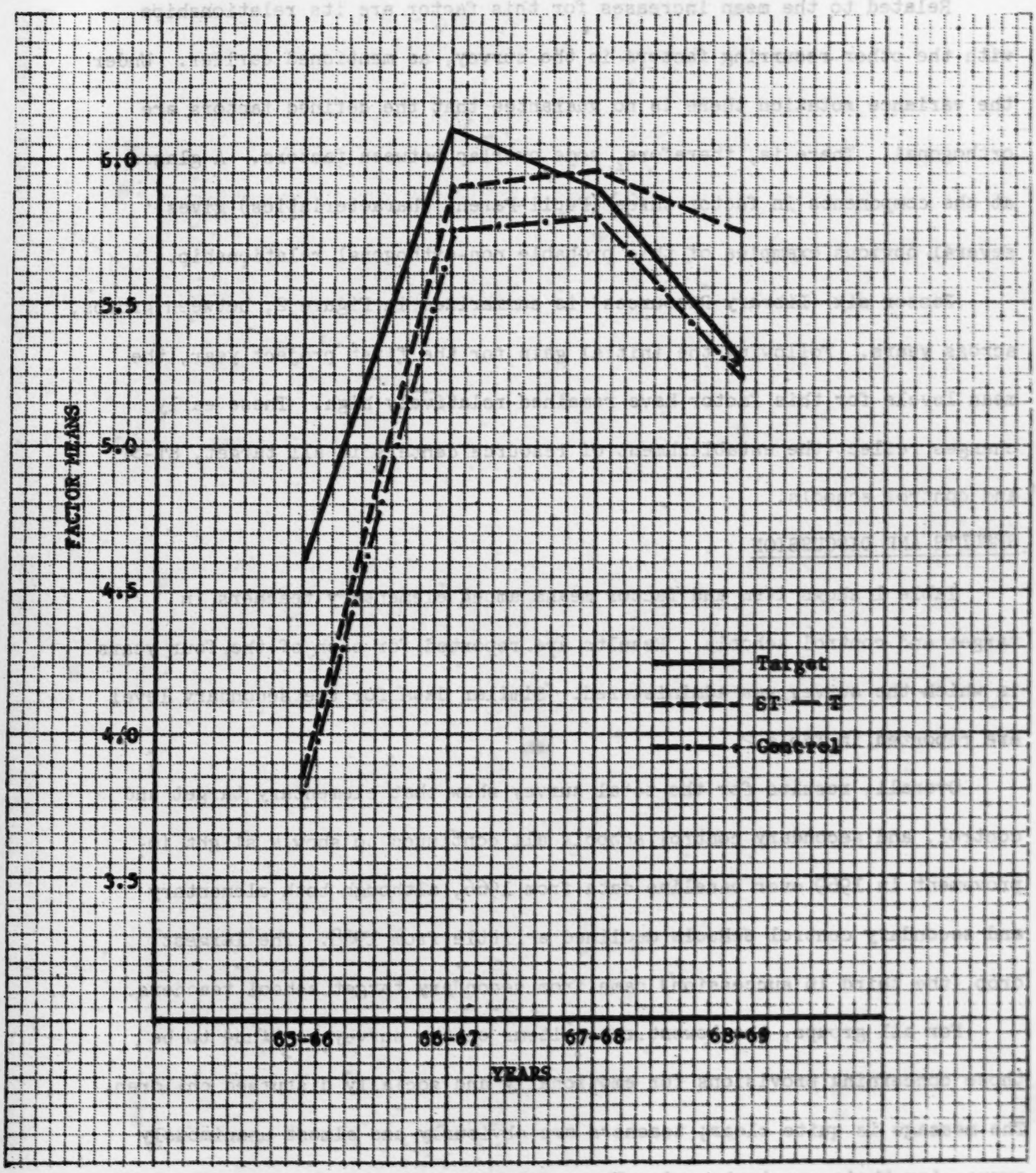

Figure 2. Factor Six (Library Resources) From Teacher Survey By Three Groups Across Four Years.

Implied in the teacher's negative feeling about provisions for dealing with problem children is his own frustration of trying to handle problems that are beyond his capabilities. This frustration permeates his entire outlook on teaching; his morale is lowered, as is his opinion of pupils and parents. It is recognized that this is a dangerous self-reinforcing deterioration of the teacher's attitude. A teacher is not supposed to be a psychiatrist or social worker. In general he has neither the necessary training nor the inclination to treat disturbed children, although many teachers do so successfully.

School boards, administrators, teachers, and educational theorists are caught in a self-made quagmire of conflicting opinion as to how to deal with disturbed children, some of whom are on the borderline of legal insanity. Briefly, the procedures usually suggested fall into four categories:

1. Isolation in separate schools.

2. Isolation in separate classes in regular schools.

3. Regularly scheduled group and/or individual therapy meetings with counselors and psychologist while integrated in regular classes.

4. Integration in regular classes with crisis-oriented administrative treatment, e.g., detention, parent contact, suspension along with parent conference, corporal punishment, etc.

There are good arguments for and against each of the above procedures; what probably is needed, however, is a system to process disturbed children through a succession of methods (4. to 1.) above, stopping at the point that seems to be best suited for the child. The entire matter will, no doubt, continue to be studied in Cincinnati and the world for many years to come.

SUMMARY

Although the overall ratings by teachers declined somewhat from 1967-68, some improvement is still noted when compared with baseline data in 1965-66. It is encouraging to note that the target school teachers rated their schools and pupils generally higher than the control groups for the past year. The lowest rated items by all groups of teachers continues to be the provisions made for the emotionally and socially maladjusted child.

CHAPTER 3

ADMINISTRATOR SURVEY: A PREVIEW

We defined:

(1) the scale utilized;

(2) the background of the scale and the data reduction procedure;

(3) factors limiting generalizability of findings;

(4) four consecutive years of responses for Target and Control school respondents.

We found:

(1) trends in several factors across years seem to be related to what we call the community 'psycho-political climate';

(2) the Pupil-Parent Characteristic factor (3) shows increasing trend across the four years of measurement;

(3) the Conditions for Instruction factor (4) shows increasing values in the most recent survey;

(4) seven of eight factors in this survey were rated by respondents on the positive side of neutrality.

CHAPTER 3

ADMINISTRATOR SURVEY, 1968-69

INTRODUCTION

School principals, assistant principals, and administrative interns are in an excellent position to study the broad overview of not only their particular schools but also the surrounding community and neighboring schools. Their judgements concerning their individual schools will, therefore, be somewhat colored by their wider range of information; they tend to interpret school matters differently from either teachers or school administrators with system-wide responsibilities.

It is for this reason, then, that a somewhat different survey form was devised for local school administrators, with results tabulated and analyzed separately. Many of the survey items are identical to those found on the Teacher Survey. Items obviously not related to an administrator were eliminated, and more pertinent items were substituted. The results of the two surveys are compared in Chapter 4 of this report.

Because of the relatively small number of school administrators, no factor analysis of the survey seemed feasible. It was assumed that the factor structure would parallel that of the Teacher Survey as outlined in Chapter 2; the different survey items for the Administrator Survey were placed into one of the eight factor constellations rationally, rather than empirically.

RESULTS

Table 4 summarizes the survey ratings given by approximately 45 administrators in target schools and those by all administrators in the Cincinnati public school system. Means are reported for factors (1-8) across the four years in which the survey was administered. Figure 3 graphically

Table 4. Mean Ratings of Administrator Survey By Factors, Years and Groups

FACTOR		YEAR 1966	1967	1968	1969
1. Morale	T	5.44	5.64	5.28	5.01
	NT	5.70	5.65	5.40	5.33
2. Special Education Needs	T	2.79	3.52	3.58	2.97
	NT	2.72	3.31	3.09	2.93
3. Pupil-Parent Characteristics	T	3.58	4.03	4.18	4.24
	NT	4.50	4.62	4.66	4.75
4. Conditions for Instruction	T	4.24	5.22	4.92	5.31
	NT	4.45	4.99	4.63	5.35
5. Improving School Program	T	4.39	5.42	4.82	4.38
	NT	4.68	5.12	4.81	4.46
6. Library Resources	T	3.89	6.10	5.89	5.37
	NT	4.21	5.48	5.47	5.44
7. Books and Supplies	T	5.50	6.15	5.80	5.77
	NT	5.55	6.01	5.87	5.76
8. School Plant	T	4.31	4.93	4.56	4.49
	NT	4.42	4.79	4.77	4.85
FACTOR TOTALS	T	4.15	4.84	4.63	4.69
	NT	4.54	4.86	4.74	4.85

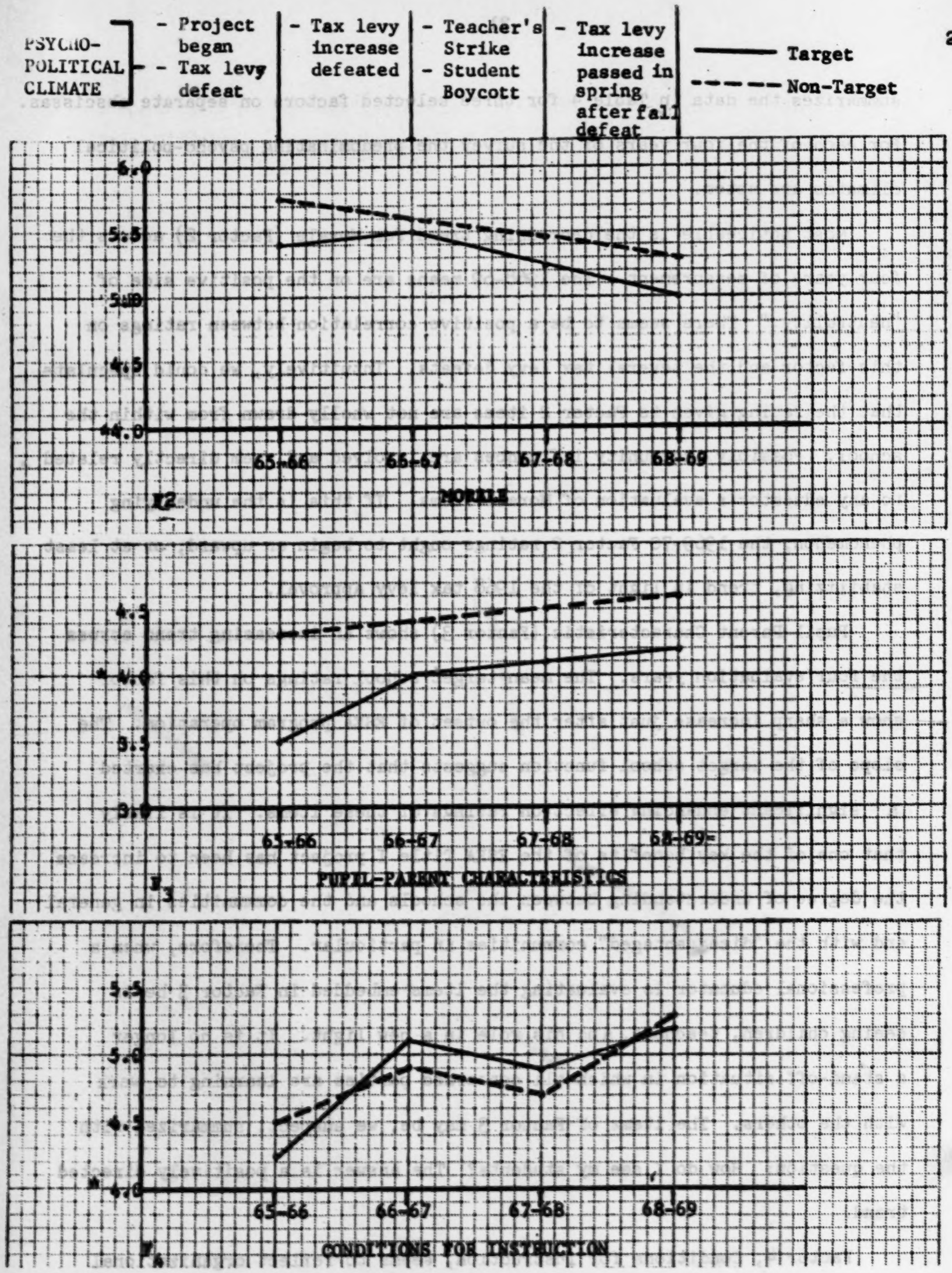

Figure 3. Target and Non-Target Factor Means Across Four Years for Three Selected Factors for Administrators.

*Neutral Rating (4.0)

summarizes the data in Table 4 for three selected factors on separate abscissas. For each of the four years of the survey the predominating psycho-political climates are noted.

Most noticeable is the decreasing trend for Morale (Factor 2) across the four years of measurement. The 1968-69 means are on the positive side of "neutrality." There seems to be a positive correlation between ratings on this factor and the several tax levy defeats. Intuitively, we could speculate that the rating given to Factor 2 items are not wholly drawn from within the school. Possibly, community influences are involved and seem directly related to any educator's evaluation of Morale items. If this is the underlying phenomenon, the 1969-70 Factor 2 ratings ought to begin an upward, or at least stabilizing, trend in light of the 1968 tax levy approval.

Pupil-Parent Characteristic (Factor 3) shows an increasing trend across the four evaluation years. The mean target school ratings on this factor show a sharp increase just after the outset of ESEA program operation. The slope of the target school function suggests that the project has exerted a significant enhancing effect on ratings of these items. It is likely that one of the key benefits of the ESEA Title I project has been to increase the degree of understanding between the schools and the communities in general and with the "disadvantaged" communities in particular. Therefore, when a professional educator is evaluating the items embedded in Factor 3 he is seeing children, teachers, and his role in a new light. It is no longer a stand-off situation in which all concerned parties are learning to work with the others. The items of Factor 3 may be, we suspect, summarized with the question: How do I see my students? The answer is a positively directed trend.

Factor 4, Conditions for Instruction, seems to reflect organizational changes enhancing instructional efforts. This is a major goal of the ESEA

Title I project. The highest mean ratings occur for the most recent measurement year. Perhaps part of the increased ratings given Factor 4 items is due to increased concern and success in dealing with in-school administrative policies.

Though we have considered but three of the administrator survey factors, it is tempting to suggest that what we see reflected in the ratings is a strengthening, overall enhancing, and facilitative effect on administrative responsibilities and effectiveness.

SUMMARY

Since administrators view the overall school situation somewhat differently from other school personnel, intuitive reasoning suggests that they be given a separate survey form. It is encouraging to note that administrators rated seven of the eight survey factors on the positive side of neutrality with Factor 4, Conditions for Instruction, reaching an all-time high. Only Factor 2, Special Education Needs, remained below the neutral mark. The pyscho-political climate index included in Figure 3 may help to explain some variations in rating.

CHAPTER 4

TEACHER AND ADMINISTRATIVE VANTAGE POINTS: A PREVIEW

Rationale

Though teachers and administrators have common educational goals, their spheres of influence and practices differ markedly. By asking how each group views similar educational conditions, practices, etc., we might get an improved perspective of the dimension in question.

We may pay particular attention to whether the trends across four years are parallel, intersecting or some combination.

CHAPTER 4

TEACHER AND ADMINISTRATIVE VANTAGE POINTS

INTRODUCTION

For any given program operational in the educational setting, at least four relatively independent assessments will be made before data are collected. First, an assessment will be made by the administrators, whose role includes directing and organizing the implementation of the program. Secondly, there are the teachers, who have the responsibility of implementing the program with the principal recipients--the children. Thirdly, there are the pupils who receive the effects of the program. Finally, there are the parents and community members, who share the educators' concern with optional educational benefits for all children.

Because of the diverse roles and responsibilities each group assumes in a program operation, each sees different aspects of the functioning program in a distinct way. It is vital, we feel, that Title I program evaluation attempt to look at survey data representing two of the four groups on the same set of axes. Considering jointly the results of the Administrator Survey and the Teacher Survey might afford us a better overall understanding of the project's performance than considering either alone. The interest is clearly not one of comparison. Specifically, when mean ratings of the two groups diverge or converge we will attempt to understand the vantage point of both groups.

RESULTS

Target school teacher and administrator mean ratings for Factor 1 (Morale) and Factor 2 (Special Education Needs) are summarized in Figure 4. For Factor 1 (Morale) the mean plots and slopes are approximately parallel. In discussing the Teacher Survey, we suggested that a relationship existed

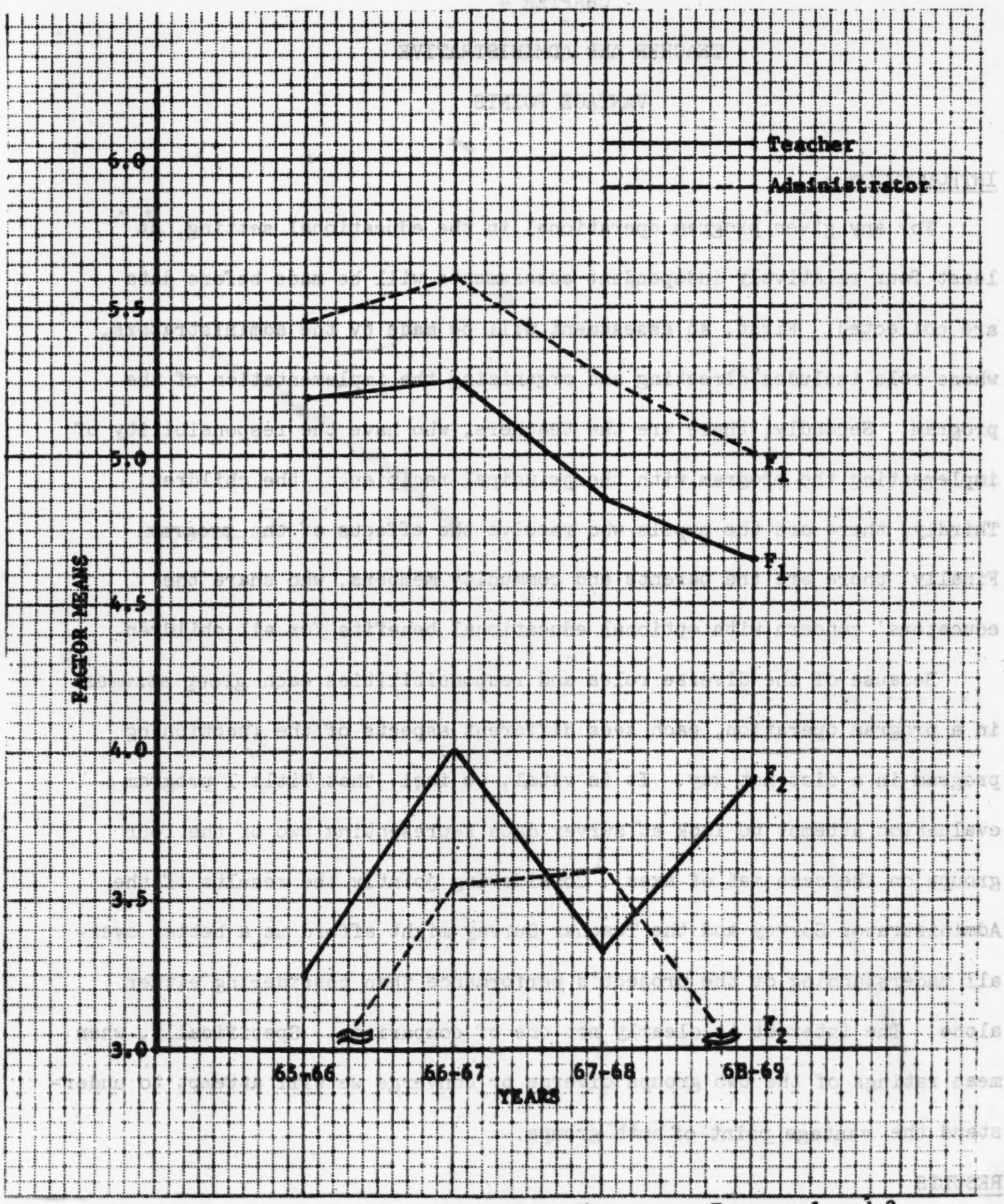

Figure 4. Teacher and Administrator Changes on Factors 1 and 2 Across Four Years.

Factor 1 - Morale
Factor 2 - Special Education Needs

between ratings of morale factor item and the prevailing psycho-political climate in the community. The observed parallel functions suggest that the aspects reflected in the Morale factor items are probably equivalent for both groups, i.e., they are correlated. The mean differences between these groups across any of the four years are probably not statistically significant. Psychologically, the consistently lower ratings by teachers might be a product of their distinctive vantage point in working more directly with problems of social relationships. The pressures of the two roles are similar, but the specific problems are not.

Factor 2 (Special Education Needs) shows an interesting cross-over effect across the four measurement years, implying an interaction in the Factor 2 ratings given by the two groups. One might suspect that the immediate effects of the operation of the ESEA project would raise the teacher ratings on a steeper slope since benefits of the program would be felt in the classroom first. Indeed, the initial year's measurements show this to be the case. Why, however, this rise should be followed by an equally steep drop only to be followed by a rise again in teacher ratings is something of a puzzle. We might consider one possible explanation for the diverging function as follows: Let us suppose that the general question posed in Factor 2 is "Are the needs of exceptional children being met?" Let us further suppose that a teacher has six children she considered exceptional and for whom she would like some special provisions made. If two of these children are in some fashion helped then possibly one-third of the 'urgent' problems have been to some degree minimized. This is probably encouraging. The administrator considering the Factor 2 items has to pool provision for exceptional children across classes. Thus, the ratio of encouraging results probably decreases. In terms of subjective judgements this is probably disheartening and possibly reflected in lowered ratings.

Teacher and Administrator mean ratings for Factor 3 (Pupil-Parent Characteristics) and Factor 4 (Conditions for Instruction) are summarized in Figure 5. The positive trend for the administrators ratings have been discussed in the previous chapter. Highlighted in that discussion was our belief that ratings in general are correlated with the prevailing psycho-educational community climates. The 1967-68 measurement was first taken after the civil and student demonstrations in the Cincinnati schools. Teacher ratings on Factors 3 and 4 show a mean decrease in that measurement year, signalling the general demoralizing influence exerted by the demonstrations. At the same time, improvement of instructional conditions was an important cause approved by the Cincinnati Teachers Association and the Cincinnati Teachers Unicn. Among the teachers' ratings both factors began an increase in the most recent school year.

Teacher and Administrator mean ratings for Factor 5 (Improving School Program) and Factor 6 (Library Resources) are summarized in Figure 6. Both groups reached asymptote after the first full year of project operation. This is in line with our findings on other factors and probably represents the initial, somewhat optimistic, thrust given the total school program. It should be recalled that under the varimax rotation procedure these factors and the pair that follow account for less than six per cent of the total variance between them. Interpretations will therefore be guarded. Two trends may be observed in the functions for these factors. First, ratings for both groups over the past three years have remained positive with respect to neutral (4.0). Secondly, both groups across the most recent three years show decreases in mean ratings. For Factor 6 the difference in means between the asymptote and present year measurements is not large. Of some concern, however, is the 1966-67 to 1968-69 decrease in mean ratings given by teachers for Factor 5. One explanation might be that items

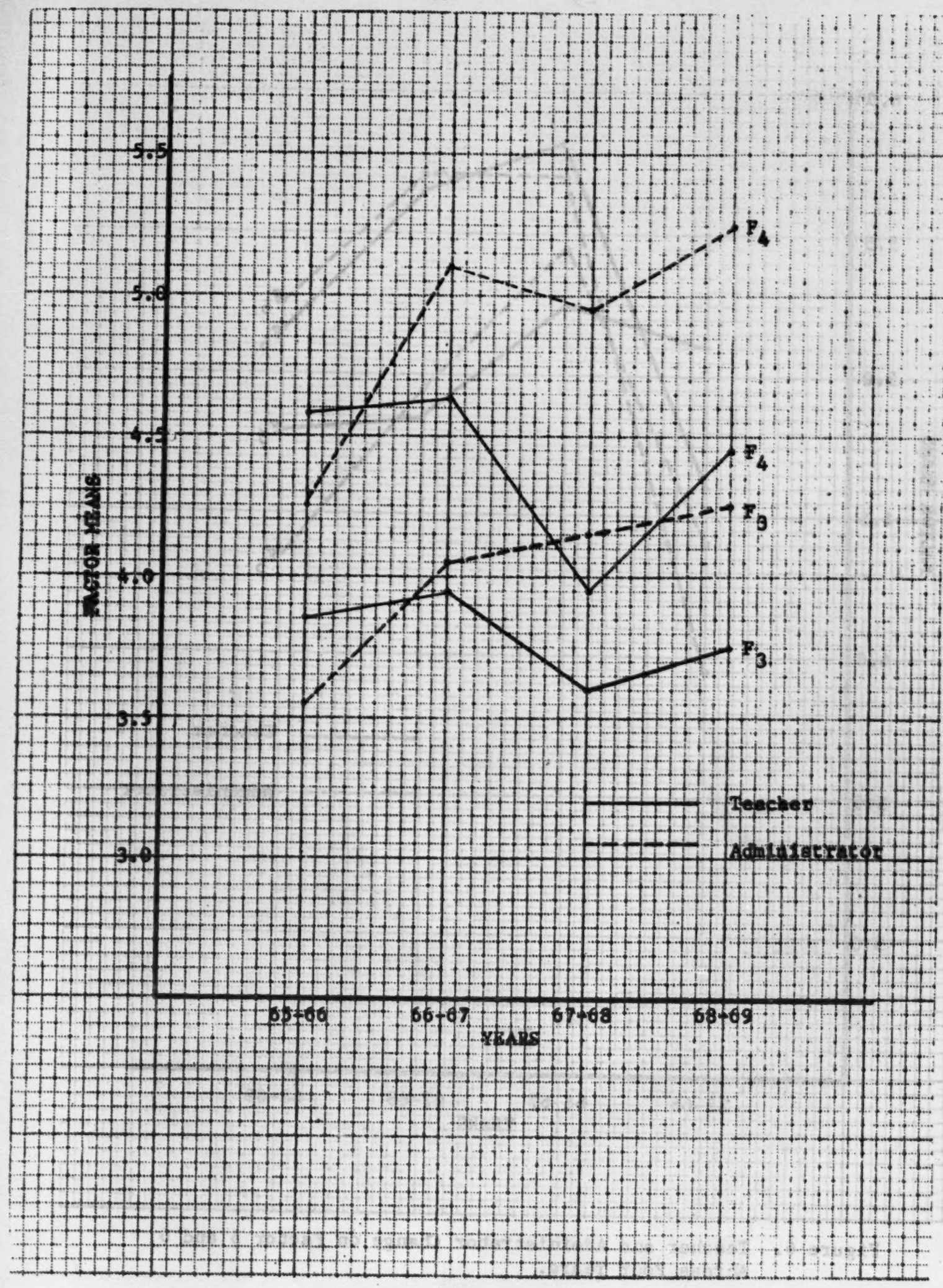

Figure 5. Teacher and Administrator Changes on Factors 3 and 4 Across Four Years.

Factor 3 - Pupil-Parent Characteristics
Factor 4 - Conditions for Instruction

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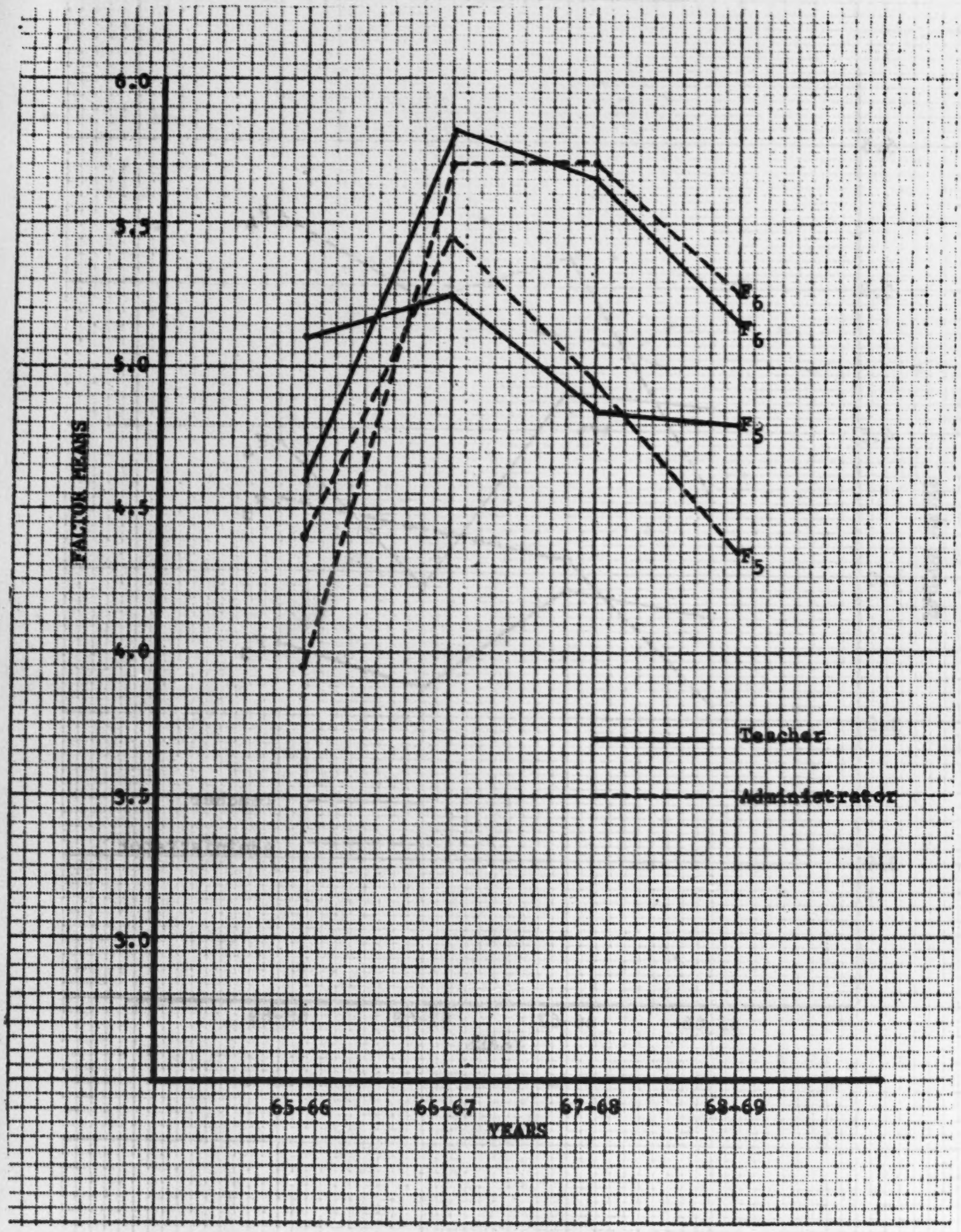

Figure 6. Teacher and Administrator Change on Factor 5 and 6 Across Four Years.

Factor 5 - Improving School Program
Factor 6 - Library Resources

reflected in this factor change depending on the context. In the initial year of the program the items in this factor could be judged as essentially available/possible or not available/not possible. Over the course of time, however, this factor could change in its structure to now include the effectiveness of what was originally considered available/possible. To assess this change would require additional factor analyses.

Teacher and administrator mean ratings for Factor 7 (Books and Supplies) and Factor 8 (School Plant) are summarized across the four measurement years in Figure 7. For books and supplies there is not a marked difference between group asymptotes and current mean ratings. This would be an expected finding. Both groups see this factor as clearly favorable. Items in Factor 8 reflect school evaluation with which we might expect administrators to be more keenly aware. Their ratings on this factor are favorable though not appreciably different from the ratings at the outset of the ESEA project.

SUMMARY

Teachers and Administrators seem to represent two professionally coordinated yet subjectively independent vantage points from which Title I efforts might be assessed. It was felt that plotting mean responses for each group across the years of measurement on pairs of factors might provide us with an improved non-comparative attitude indice than would result from plotting either group's responses separately. We must recall that the amount of variance accounted for in the surveys by the identified factors was relatively low. Our findings would therefore more closely resemble hypotheses than definitive conclusions.

The data suggest that:

1. Professional role differences seem related to response differences in the surveys. Apparently Teachers and Administrators as groups interpret and respond differentially to overtly similar survey items. This suggests that educational planning and innovation must include active consideration of both groups jointly and independently to maximize

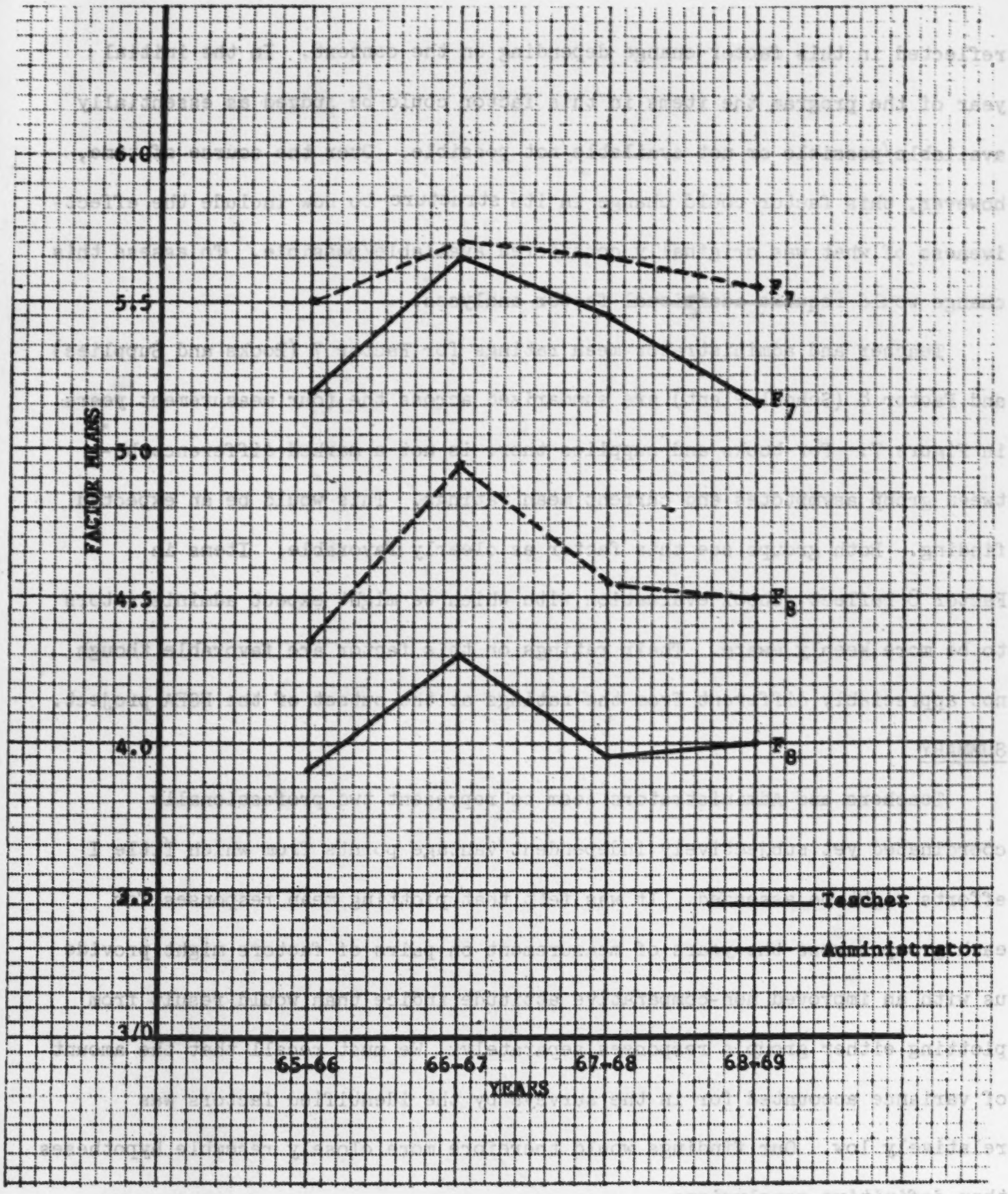

Figure 7. Teacher and Administrator Changes on Factors 7 and 8 Across Four Years.

Factor 7 - Books and Supplies
Factor 8 - School Plant

the probability of success.

2. Particularly with the Morale factor (Factor 1) the implied correlation is with the prevailing psycho-political climate in the community. On this factor the two groups are most similar.

3. Factor 2 (Special Education Needs) shows an interaction between groups across the years of measurement. We suggested that the steeper slope among teacher ratings for the initial year of the project operation reflected the optimistic surge with positive changes. The more recent years reflect the interaction component. We attributed this component to the diverse roles of the two groups of interest and offered an hypothesis that seemed most tenable.

4. Thirteen of the 16 sets of means plotted show that the 1968-69 ratings were no lower than the mean level of those ratings made in 1965-55. Of these 13 about half show an increase over the same period. It is our feeling that these graphs represent two phases in the effective utilization of Title I resources in Cincinnati. Phase I occurred with the onset of ESEA resources and immediately reflected itself in optimism. Phase II began probably near 1967-68 when the panacea aura wore off and professionals renewed efforts for maximizing the educational experiences of their pupils.

CHAPTER 5

STUDENT SURVEY: A PREVIEW

We defined:

(1) the scale utilized;

(2) the background of the scale and the data reduction procedures;

(3) Target and Control schools, grades six, nine and twelve;

(4) factors limiting the generalizability of findings.

We found:

(1) significant increases and decreases in percentage of favorable responses;

(2) we discussed these changes and the groups in which they occurred;

(3) prevalence of highly favorable responses among sixth graders on "Attitude Toward School." All groups and grades were similar in ratings of "Academic Confidence" items;

(4) we discussed our rationale for variance changes within groups. Some data support our contention.

CHAPTER 5

STUDENT SURVEY, 1968-69

INTRODUCTION

One of the goals of ESEA, Title I, is to improve pupil attitudes toward the educational process in general and their personal interaction with the school in particular. In light of this goal, evaluating specific learnings without considering the person in whom these learnings are occurring is something less than half the product evaluation. In general we may ask: How has the Title I effort changed pupil attitudes?

It has been said that if you want to know what a person thinks and what his attitudes are, you should observe him because he will literally "live-out" these feelings and attitudes. This would be an ultimate unobtrusive measure. An environment such as the complex multivariate educational setting might be empirically "reduced" by finding basic data that reflect the entire processes of interest. This task would involve locating, integrating, and factoring the complex environment into observable, manipulable elements of behavior and their interacting components. There is a growing body of empirical literature attempting to accomplish this. In Cincinnati plans for such an undertaking are being made by the Division of Program Research and Design.

The alternative is to ask the student how he feels about himself, about others involved in the learning processes, and about the processes themselves. The major vehicle for this assessment is the attitude survey. Since the inception of Title I programs in Cincinnati in 1966, a continuing effort has been made to assess their impact upon student attitudes and values. A rather complete discussion of the background of the Student Survey appeared in the Journal of Instructional Research and Program Development, Volume 4, Number 5.

BACKGROUND

There are at least two problems inherent in the use of attitudinal scales that we might consider before examining our data:

1. For any given item, it is assumed that the respondent is candid with himself and, further, that his response directly reflects his appraisal of the item in question, not an attempt to answer the way he feels we would want him to.

2. Responding to an attitude survey constitutes an experimental treatment. It can serve the function of alerting respondents to the kinds of behaviors deemed desirable by the survey constructors. Some care, therefore, needs to be exercised in interpreting relatively small increasing trends.

The results of the 1967 survey were factor analyzed. This analysis identified a two-factor constellation, with one factor associated with student attitude toward school itself and the other concerned with his feelings about his likelihood of success. The two factors were thus labeled: Attitude Toward School and Academic Confidence.

In our examination of these data, we will consider responses by target students and appropriate comparison groups across three years for grades six and nine and across two years for grade twelve. Target data from grade twelve are available from only one high school. A second analysis will consider year-to-year changes for school groups, by factor and by grade. Finally, we will consider whether or not the same individual items take on different meanings for respondents of different ages and different lengths of school experience.

It is difficult to talk of differences between groups on ratings unless we have some degree of assurance that overall rating differences are greater than what chance alone would allow. Below are summarized the probabilities associated with changes of the smaller frequencies for target and control (within group) over the 1968 and 1969 ratings by grade level. The data on which these nonparametrics are based appear in Tables 5, 6, and 7.

Grade	Group	+	-	P
6	Target	16	9	<.115
	Control	5	20	<.002
9	Target	16	9	<.115
	Control	16	9	<.115
12	Target	15	10	<.212
	City-Wide	16	9	<.115

It would be inappropriate, we feel, to rigidly apply traditional probability standards for significance tests in this case. We will, therefore, consider any probability less than .15 as indicating significant change. The changes in survey responses, then over the past two years suggest an increasingly favorable attitude, with the important exception of the sixth grade control group ($p<.002$). We will consider these findings in more detail when we examine the rating changes by grade level.

Table 5 summarizes percentages of favorable responses by sixth graders by school group, year, factor composite, and item. In 1968, there was a decrease in the percentage of favorable responses among target school pupils, while those attending non-target schools showed an increase. An analysis of covariance, with the previous year's ratings as covariate, showed this difference to be significant ($F=4.21$ with $1+49$ df, $p<.05$). It should be recalled that the covariance adjustment is literally an adjustment due to the linear fit between variables. It is adjusting observed means for expected means.

The probabilities for the nonparametric sign test for target decreases in 1968 and control increases in 1968 are $p<.345$ and $p<.054$, respectively. The 1968 changes within the target groups were not significant by our standard of $p<.15$. For the control groups, however, the increase was significant ($p<.054$). This finding suggests that the significant covariance

Table 5. Percentages of Favorable Responses to Student Survey, Sixth Grade, by School Group, Year, Factor, and Item.

FACTOR / Item	TARGET SCHOOLS 1967	TARGET SCHOOLS 1968	TARGET SCHOOLS 1969	CONTROL SCHOOLS 1967	CONTROL SCHOOLS 1968	CONTROL SCHOOLS 1969
FACTOR 1: ATTITUDE TOWARD SCHOOL						
- Do you like school?	86.9	79.0	83.3	81.2	84.1	81.4
- Do you read books from a library?	88.3	87.4	84.8	91.5	87.2	88.0
- Do you like your school?	73.5	67.4	68.9	67.3	69.1	64.7
- Do you get along better outside of school than in school?	46.6	43.0	58.5	47.8	48.8	59.4
- Would you like to spend more time at school?	39.7	32.2	41.4	36.4	36.2	33.2
- Do you look forward to coming to school each morning?	80.2	75.8	78.6	77.6	79.0	78.2
- Do you talk about school at home?	81.1	76.5	80.3	80.5	79.7	80.5
- Do you think your teachers usually expect too much of you?	58.2	56.8	61.2	65.5	64.1	66.6
- Are your lowest grades usually your teacher's fault?	84.9	81.4	88.5	83.0	87.4	90.5
FACTOR AVERAGE	71.0	66.6	71.7	70.1	70.6	71.4
FACTOR 2: ACADEMIC CONFIDENCE						
- Do you need more help from your teacher?	30.5	34.1	32.0	29.3	30.4	36.3
- Are you satisfied with the grades on your report card?	39.3	45.7	49.8	50.5	48.5	46.1
- Do you worry about your schoolwork?	17.9	20.1	20.0	23.7	15.0	23.0
- Are you doing better in your schoolwork this year?	67.6	71.0	72.5	74.7	71.6	70.5
- Do you think you will graduate from high school?	88.6	87.4	86.3	87.0	92.8	91.8
- Do your teachers think you are doing well in your schoolwork?	55.2	62.4	60.7	59.1	57.8	64.0
- Do your parents think you are doing well in your schoolwork?	67.2	69.2	72.6	72.5	70.4	68.1
FACTOR AVERAGE	52.3	55.7	56.3	56.7	55.2	57.1
OTHER ITEMS						
- Do you enjoy field trips?	97.8	94.6	70.9	93.3	95.9	74.4
- Do field trips help you in schoolwork?	74.8	72.0	74.3	70.9	75.7	70.5
- Has someone from home ever talked to your teachers?	76.7	76.7	79.6	76.9	82.3	77.9
- Do you get prasie at home for good schoolwork?	78.9	80.4	75.6	75.9	81.5	78.3
- Do you hope to go to college?	91.6	89.7	87.0	89.7	92.7	90.5
- Do you talk at home about what kind of job or career you will have after you are out of school?	86.9	84.3	83.0	84.6	88.9	84.2
- Do you read more than is required by your schoolwork?	55.3	56.4	56.2	49.5	57.9	54.7
- Do you think you could do well in any school subject if you studied hard enough?	96.3	96.6	96.0	96.8	97.1	96.2
- Do you think you could do well in any kind of job you choose?	72.0	71.1	70.6	70.7	72.7	70.8
AVERAGE	81.1	80.2	77.0	78.7	82.7	77.5
TOTAL SURVEY AVERAGE	69.4	68.4	69.3	69.4	70.7	69.6

F reflects the fact that the target sixth graders remained statistically unchanged but numerically lower while their control group peers showed a significant increase in favorable responses when the 1967 ratings were used to control for "pre-test" differences.

We note that for this control group the 1969 results indicated a significant decrease in percentage of favorable response. The apparent reversal could be due to the variability of this group and errors of measurement. Our data suggest no clear explanation for this finding. For target school sixth graders, however, we find significantly more items increasing than decreasing in percentage of favorable response.

Table 6 summarizes percentages of favorable responses by ninth graders by school group, year, factor composite, and item. Considering the 1968-1967 differences for the two groups separately we find probabilities associated with their answers of $p<.007$. For both groups, then, significantly fewer favorable ratings were noted. From 1968 to 1969, we note a significant increase in favorable ratings for each group ($p<.115$).

How could it be then that the Total Survey Average for the twelfth graders in control schools show identical values for 1968 and 1969? The Total Survey Average is a mean. It is a mean of pooled percentages treated as though they were interval level data--which they are not. That is why we have not discussed these 'averages' in this evaluation. The point here is that there may have been many positive 'changes' in ratings that could be offset by a single relatively large decreasing rating. Hence, in the case of the 1969 twelfth graders in city-wide group, 16 ratings showed a positive change. Numerically, the nine showing losses equal the 16 showing gains. The result is no mean differences but considerable change within groups. We may tentatively suggest that not only are these students showing

Table 6 Percentages of Favorable Response to Student Survey, Ninth Grade, by School Group, Year, Factor, and Item.

FACTOR / Item	TARGET SCHOOLS 1967	1968	1969	CONTROL SCHOOLS 1967	1968	1969
FACTOR 1: ATTITUDE TOWARD SCHOOL						
- Do you like school?	78.3	76.3	75.7	78.9	68.1	73.3
- Do you read books from a library?	62.5	55.9	49.8	60.4	55.6	51.3
- Do you like your school?	65.1	60.2	66.3	63.2	51.1	59.0
- Do you get along better outside of school than in school?	43.6	35.1	37.4	24.1	32.6	34.0
- Would you like to spend more time at school?	15.5	14.7	13.1	12.7	10.9	13.7
- Do you look forward to coming to school each morning?	60.5	62.3	62.9	62.9	55.3	59.0
- Do you talk about school at home?	72.6	70.3	73.3	74.6	67.6	72.7
- Do you think your teachers usually expect too much of you?	54.0	58.1	57.8	50.0	51.2	49.7
- Are your lowest grades usually your teacher's fault?	80.7	81.6	91.7	78.6	78.0	91.3
FACTOR AVERAGE	59.2	57.2	58.7	56.2	52.3	56.0
FACTOR 2: ACADEMIC CONFIDENCE						
- Do you need more help from your teacher?	35.8	39.4	36.7	38.5	41.7	40.7
- Are you satisfied with the grades on your report card?	36.9	33.0	44.4	33.5	34.1	35.3
- Do you worry about your schoolwork?	27.4	24.5	25.7	24.1	26.6	29.7
- Are you doing better in your schoolwork this year?	60.5	59.0	62.0	59.6	55.7	58.0
- Do you think you will graduate from high school?	95.3	91.8	93.5	96.0	95.0	93.7
- Do your teachers think you are doing well in your schoolwork?	60.1	51.9	62.2	56.1	54.3	58.0
- Do your parents think you are doing well in your schoolwork?	63.0	56.5	66.5	59.8	57.8	60.0
FACTOR AVERAGE	54.1	50.9	55.9	52.5	52.1	53.6
OTHER ITEMS						
- Do you enjoy field trips?	95.3	95.3	81.7	92.8	89.1	83.3
- Do field trips help you in schoolwork?	78.5	74.8	64.6	71.8	59.1	54.3
- Has someone from home ever talked to your teachers?	63.9	62.3	61.7	66.3	66.2	60.3
- Do you get praise at home for good schoolwork?	62.5	61.0	67.0	64.3	64.1	65.7
- Do you hope to go to college?	69.2	70.1	68.4	74.7	72.6	74.0
- Do you talk at home about what kind of job or career you will have after you are out of school?	84.1	84.7	84.4	85.2	83.9	84.3
- Do you read more than is required by your schoolwork?	38.4	31.9	31.9	36.8	29.9	31.3
- Do you think you could do well in any school subject if you studied hard enough?	92.6	91.8	93.9	91.0	88.3	90.7
- Do you think you could do well in any kind of job you choose?	75.6	77.3	77.4	77.8	77.8	76.7
AVERAGE	73.3	72.1	70.1	73.4	70.1	69.0
TOTAL SURVEY AVERAGE	62.9	60.8	62.0	61.3	58.7	60.0

increased percentages of favorable ratings but that there is more agreement among them about these ratings.

The 1967 factor analysis isolated two factors in this survey: Attitude Toward School and Academic Confidence. Table 8 summarizes percentages of favorable ratings by school group, year, and factor composite. It should be noted that the factor composites represent means of percentages assuming interval level data. There may be, however, an overall sequence relevant to our concern. Following is a tabular survey of that data.

Table 7. Percentage of Favorable Responses by Factor, Grade, School Group, and Year.

Factor	Grade	TARGET			CONTROL		
		1967	1968	1969	1967	1968	1969
1. Attitude Toward School	6	71.0	66.6	69.2	70.1	70.6	68.2
	9	59.2	57.2	58.7	56.2	52.3	56.0
	12[a]	----	64.5	65.5	----	57.0	57.8
2. Academic Confidence	6	52.3	55.7	56.2	56.7	55.2	57.1
	9	54.1	50.9	55.9	52.5	52.1	53.6
	12[a]	----	52.0	61.0	----	59.0	58.0

[a]Denotes City-Wide Comparisons

Most noticeable is the prevalence of highly favorable responses among sixth graders on Factor 1 regardless of their attending target or non-target schools. For Factor 2 all groups seem to be at a theoretical agreement. There are some interesting questions raised by this finding. By definition the students surveyed as a group are more likely to be below a national norm than above one. Now the questions:

Table 8.. Percentages of Favorable Response to Student Survey, Twelfth Grade, by School Group, Year, Factor, and Item.

FACTOR Item	TARGET SCHOOL 1968	 1969	CITY-WIDE SCHOOLS 1968	 1969
FACTOR 1: ATTITUDE TOWARD SCHOOL				
- Do you like school?	82.6	80.7	69.4	65.7
- Do you read books from a library?	58.4	61.7	61.6	60.7
- Do you like your school?	89.6	92.8	71.5	69.9
- Do you get along better outside of school than in school?	58.8	49.7	46.6	56.7
- Would you like to spend more time at school?	12.5	14.0	8.3	7.4
- Do you look forward to coming to school each morning?	62.2	60.4	31.6	26.5
- Do you talk about school at home?	74.1	77.6	75.0	73.2
- Do you think your teachers usually expect too much of you?	57.7	57.3	64.5	66.3
- Are your lowest grades usually your teacher's fault?	84.7	95.3	84.8	93.7
FACTOR AVERAGE	64.5	65.5	57.0	57.8
FACTOR 2: ACADEMIC CONFIDENCE				
- Do you need more help from your teacher?	31.2	45.8	57.8	62.9
- Are you satisfied with the grades on your report card?	27.2	36.8	37.9	46.6
- Do you worry about your schoolwork?	29.4	32.6	30.9	35.5
- Are you doing better in your schoolwork this year?	61.7	67.2	61.1	61.9
- Do you think you will graduate from high school?	96.5	95.9	97.4	98.4
- Do your teachers think you are doing well in your schoolwork?	52.7	66.8	57.6	62.0
- Do your parents think you are doing well in your schoolwork?	65.4	73.3	60.6	64.4
FACTOR AVERAGE	52.0	61.0	59.0	58.0
OTHER ITEMS				
- Do you enjoy field trips?	93.0	89.0	82.7	92.0
- Do field trips help you in schoolwork?	67.2	59.4	58.5	57.6
- Has someone from home ever talked to your teachers?	55.0	50.8	54.2	52.9
- Do you get praise at home for good schoolwork?	70.3	64.8	67.7	67.6
- Do you hope to go to college?	58.9	63.2	78.9	70.6
- Do you talk at home about what kind of job or career you will have after you are out of school?	90.1	87.6	89.8	90.3
- Do you read more than is required by your schoolwork?	41.8	39.9	51.4	51.0
- Do you think you could do well in any school subject if you studied hard enough?	90.1	88.1	84.2	84.7
- Do you think you could do well in any kind of job you choose?	86.6	87.1	72.5	74.5
AVERAGE	72.6	70.0	70.0	71.2
TOTAL SURVEY AVERAGE	63.9	65.5	62.3	62.3

1. Is it psychologically more feasible to reconcile a favorable attitude toward school with less than outstanding performance than to reconcile academic confidence with less than truly adequate performance? Little is known about the degree of correspondence between survey ratings and reality. A study is being designed to attempt to answer this question empirically.

2. Implicit in (1) above, is the notion that 'expectancy' is given by the norming group. Is this assumption correct? Not necessarily. It has probably confounded as many school survey interpretations as any other variable. It is one we will, therefore, attempt to guard against.

Pooling data (percentages) across years within school groups and factors we arrive at the following 2 x 2 table.

		A_1 TARGET	A_2 CONTROL	Pooled SSw
		$\bar{x}$ = 63.9	$\bar{x}$ = 61.0	
P_1	FACTOR 1			
		SSw = 182.71	SSw = 376.86	559.57
		$\bar{x}$ = 53.5	$\bar{x}$ = 55.5	
B_2	FACTOR 2			
		SSw = 72.29	SSw = 46.80	119.09
	Pooled SSw	255.00	432.66	

Our initial feeling was that it is more feasible to maintain a favorable attitude toward school (Factor 1) with less than outstanding performance than to maintain academic confidence (Factor 2) with the same performance criterion. If this is so, we ought to observe large variance differences in the factors. There are two variance ratios of interest:

1. Target vs. Control (pooled across factors)
   F = +1.66 with 13 + 13 df $p<.25$ NS

2. Factor 1 vs. Factor 2 (pooled across school groups)
   F = +4.69 with 13 + 13 df $p<.01$ S

There is a significant difference between Factors 1 and 2. The question is what could have accounted for this difference. The students were the same; the years were the same; the school groups were the same. Perhaps a less than personally satisfying academic record is also a similar condition. We feel this may be the key. What is possibly reflected here is that the factors are correlated with different external realities.

We are suggesting that the nature of a child's school experiences is more directly assessed by Factor 2 items, such that academic confidence can be more affected (presumably positively or negatively) by realities of academic work. Other hypotheses are also possible. Further research is clearly required.

Our final analysis will look at whether or not items take on different meanings for respondents of different ages. To do this we can consider certain items by school group, grade, and years. The items reported seemed to reflect large changes between grades and were fairly stable across years. A summary appears on the following page.

Overall, we note the greatest differences where they would be most anticipated, between the sixth and twelfth graders. It may be of interest that the ninth graders appear more like the twelfth graders on one item, more like the sixth graders on another, and somewhat independent on a final item.

Do you like school? Why would a student report that he likes school? Is it the academic atmosphere, the pressure of the peer group, a friendly teacher, a lunch meal, a warm building, interesting subjects? Or is it that the student thinks the survey builder would value such a response? Any or all of these could be involved.

The highest percentages of affirmative response occur in the sixth grade. The ninth graders are closer to the twelfth graders than the ratings

Item	Grade	TARGET 1967	TARGET 1968	TARGET 1969	CONTROL 1967	CONTROL 1968	CONTROL 1969
Do you like school?	6	86.9	79.0	83.3	81.2	84.1	81.4
	9	78.3	76.3	75.7	78.9	68.1	73.3
	12[a]	----	82.6	80.7	----	69.4	65.7
Do you look forward to coming to school each morning?	6	80.2	75.8	78.6	77.6	79.0	78.2
	9	60.5	62.3	62.9	62.9	55.3	59.0
	12[a]	----	62.2	20.4	----	31.6	26.5
Do you need more help from your teacher?	6	30.5	34.1	32.0	29.3	30.4	36.3
	9	35.8	39.4	36.7	38.5	41.7	40.7
	12[a]	----	31.2	45.8	----	57.8	62.9

[a]Denotes city-wide comparisons

of the sixth grade students. The question is what are the different things to like about school for a sixth grader vs. a twelfth grader. By the time a student reaches the twelfth grade one of the things he undoubtedly likes is the fact that he will be graduating. In the sixth grade day-to-day events probably contribute to these ratings--has he done well, has he found friends, etc.

The difference between target and city-wide twelfth grade students ratings to this item raises another question: Could it be that "liking school" for the latter group of students is dependent upon the amount of academic pressure that is exerted on the student? Does anyone "have a good time" at school? Could this be a variable? It is our hope that further research will clarify this issue.

Do you look forward to coming to school each morning? The highest percentage of favorable responses are observed among the sixth graders. The

lowest percentage occurs among the control group twelfth graders. There is an obvious difference in their respective responses to the same item. Why would a student look forward to coming to school? To help prepare himself for a field of work, to be in a warm building, to have a 'good' time, to be with friends, etc. The list is almost infinite. Could it be that a city-wide group twelfth grader who reports not liking school is really saying that he is somewhat apprehensive about the work he is expected to produce? Are there differences in the expectations made of target vs. control group twelfth graders?

Do you need more help from your teachers? Most noticeable here are the large changes for both city-wide and target student ratings on this item. The highest ratings to this item occurred in the 1969 survey and both were in the twelfth grade. As with the question "do you like school" it seems likely that we see reflected here a new response discussion. Probably the basis on which a teacher is evaluated by the student changes as a student nears graduation. Answering this item affirmatively could have at least two interpretations:

1. The teacher may be the key to whether or not a student graduates and/or

2. the positive ratings reflects in at least some students a recognition of the teacher as a person from when the student can leave to educate himself.

SUMMARY

In summary then, our data suggest that:

1. The changes in survey responses over the past two years suggest an increasingly favorable attitude toward school related items on the part of target and city-wide students. The notable exception to this trend is the city-wide sixth grades for whose ratings we observe a decrease in favorable ratings. These ratings were computed on a within-group, between years basis across grades.

2. Considering the first factors across years rather than items pooled across factors we note prevalence of favorable responces among sixth graders regardless of school-group membership. For Factor 2 all groups

seem to be in a general theoretical agreement with the twelfth graders numerically highest in three of their four measurements. In light of this observation we raised two questions: namely, whether it was psychologically more feasible to reconcile a favorable attitude toward school with less than outstanding performance than to reconcile academic confidence with less than truly adequate performance.

3. There is a significant difference in pupil variability in responses between Factors 1 and 2. We suggested that the nature of the students school experience is done directly assessed by Factor 2 items, such that academic confidence can be more affected by realities of academic work.

4. Responses to survey items are correlated with the age of the student at least for the three items considered. Some alternatives hypotheses for the response variabilities were offered.

CHAPTER 6

PARENT SURVEY: A PREVIEW

We defined:

(1) the scale utilized;

(2) the parent sample;

(3) the background of the scale;

(4) the basic changes in the 1969 scale as compared with other years.

We found:

(1) percentage of favorable responses on the six items retained from former years remained very constant;

(2) the project parents are apparently being involved in school activities more than non-project.

CHAPTER 6

PARENT SURVEY, 1968-69

BACKGROUND

Possibly the most important single force in shaping the attitudes and behavior of any child is that exerted by his parents. The presence and nature of parental pressures in a student are often unrealized by the child, himself; he is often unaware that his parents even have values and standards, much less that they may be different from those of his neighbors. Yet, the combination of these forces has more to do with shaping his destiny than any other single factor.

In an effort to assess the current nature of these parental attitudes toward school and children, we have designed and administered a Parent Survey questionnaire, which was given in May, 1969, approximately 650 project parents and 175 non-project. The survey contains 18 items; the parents are asked to answer either "yes" or "no," with an affirmative answer considered the better from an educator's point of view.

There are two major differences between the 1968-69 survey of parents and those given in the past. The first is that all of the project parents questioned in our sample had children receiving project services in a Title I program, while those in the non-project sample had children attending target schools but whose children were not part of the project activities. In the past, all parents who had a child attending a target school were pooled as target parents. Comparisons were then made between them and control school parents. This year comparisons are made between parents from all target schools, but whose children were either project or non-project.

The second differences is that the survey was changed considerably in 1969. Of the 18 items in the original questionnaire, only six remain in

unaltered form; three others are similar but changed enough to make their comparisons doubtful; and nine are completely different.

RESULTS

The results of the survey are shown in Table 9. Since nearly all parents answered all questions except number 8, ("Do you think your child will go to college?") one can compare the trend of thinking between years and groups rather easily.

The greatest difference between project and non-project answers shows itself in survey items 2, 6, 9, 12, and 14. Four of these questions (2, 9, 12, 14) are all centered about parent involvement in school activities and frequency of teacher contact with the parent. Interestingly, all four of these items showed a higher percent (8 to 13%) for the project group. A logical inference is that the project has been somewhat successful in contacting and involving parents. While this is encouraging, the project students may have some reasons for apprehension since question 6 (Do you think your child is doing the best he can in school?) is 7 per cent lower for project parents.

Two inferences may be drawn: Bearing in mind that project children are the most educationally needy, one possible conclusion is that the parent who has more contact with teachers and school activities has a better opportunity to observe other students and make comparisons of his child with the group, which may result in his belief that his child is not trying as hard as the others. The second is that possibly a greater percentage of project children are in reality not working to capacity, which is perhaps part of the reason they were classified as "Project" originally.

When year-to-year comparisons are made of responses to the six identical questions, no significant differences are discernible.

Table 9. Percentages of affirmative responses to Parent Survey, by Parent Group for 1968-1969.

Item	1968 N= 406	1969 Project Parent N= 642	1969 Non-Project Parent N= 170
1. Is ___ getting the kind of education you think he needs?		91.8	95.3
2. Has ___ teacher contacted you this year by a note, telephone call, or visit?		63.8	53.8
3. Does ___ like school?	94.3	94.9	97.6
4. Do you think ___ teacher is really interested in him/her?		95.5	94.6
5. Does ___ read at home?	86.4	84.8	87.7
6. Is ___ doing the best he can in school?		60.2	67.4
7. Do you think ___ will finish high school?	95.0	93.1	95.3
8. Do you think ___ will go to college?	52.9	53.0	54.9
9. Do you do things with ___ because of the school's influence?		66.3	53.2
10. Does ___ school let you know about upcoming school events so you have an opportunity to attend?		94.6	93.6
11. Has ___ school asked you to help with school activities?		69.6	65.8
12. Do you participate in any activity of ___ school?		40.0	30.4
13. Do you like ___ school?		94.5	92.3
14. Have you attended any programs or events at ___ school this year?		60.9	52.9
15. Does ___ get along well with other students in school?	95.0	93.3	94.1
16. Do you approve of ___ friends?	89.3	91.1	92.9
17. Do pupils from ___ school behave properly on their way to and from school?		77.7	78.7
18. Do you think ___ is getting as much out of his school work as he should?		64.7	67.0

got new answers. It is a start, but we feel an important one.

(c) Significant findings in program evaluations would reflect massive experimental effects. As with achievement data, we feel that program effects ought to be among the last behavioral changes to occur. A major reason for this is that by definition the program evaluation is based on an averaging process. A given student's loss or gain is averaged in with others in his class. That class' loss or gain is averaged in with that of the other classes in the school. Finally, that school is averaged with other schools falling in one or another category. So the average we wind up with is based on at least three previous averages, each of which can easily have the effect of camoflaging any basic effects present at a lower level in the averaging process.

A further problem is in the level of measurement reflected in our data. The psychological distance between any two adjacent grades is not the same. Grade equivalents from standardized tests do not represent equidistant scale points. In essence we often do not have interval level data. Where we felt it appropropiate, therefore, we have used nonparametric methods to treat the data.

In this introductory section, we have tried to summarize what we feel are some of the problems inherent in working with an overall program evaluation in general and with achievement data in particular. We have also tried to apply conclusions in (a) through (c) above to the academic achievement evaluation that follows.

PROCEDURES

The data analyzed for this chapter were collected from a variety of achievement tests administered to target school pupils in the 1968-69 school year. Some of these tests were new to the Title I program. Dissatisfaction with the Stanford Battery as a measure of the achievement of

disadvantaged pupils led to the appointment of committees to select more appropriate instruments. For the primary grades the Cooperative Primary Tests were chosen as the end of year measure, while the Test of Adult Basic Education was used for junior and senior high school pupils (with the exception of one school, intermediate grade pupils did not receive Title I services).

The introduction of new instruments left us without baseline data that could safely be used for comparison. In some cases comparisons with previous years' test scores were made and interpreted cautiously in this report. In the main, however, this problem was circumvented by relying heavily upon data from the California Lower Primary Reading subtest administered to project pupils in grades one through three in September, 1968; February, 1969; and July, 1969. The majority of Title I funds in Cincinnati were in fact expended on reading instruction for primary grade pupils, so that these data are probably the most meaningful available for program evaluation. Where data from other tests are used in this report, the specific battery and date of administration are indicated in the text along with the procedures used in analysis.

A Look at Target Schools. Traditionally, Title I evaluations have begun by comparing mean or median gains in some achievement area(s) in schools of the "target" classification with changes in "non-target" school groups. This evaluation plan can be very useful. However, an assumption is made for that plan that is not generally examined. The implicit assumption is that all schools comprising, say, the "target" category do not significantly differ from one another on the criterion measure(s) of choice. In an experimental situation where true random treatment assignment is possible, there would be no a priori reason for believing any of the category elements to be significantly different from any other elements.

In our case, however, the designated "target" schools cover large and distinct geographical areas of the city, the treatment assignments are certainly not random but selective, and more than a few schools are involved. Thus, we felt that there was no reason to believe that schools considered "target" did not differ among themselves and in significant amounts.

To test this hypothesis we considered the California Lower Primary Reading Test (Form W) results of second graders in target schools for the September administration. The criterion measures were the total reading raw score for each student, pooled across project students within a school. These data were analyzed in a one-way analysis of variance with the results summarized below.

Source of Variance	SS	df	MS	F
Between Schools	9,409	14	672.07	6.92
Within Schools	34,285	353	97.12	($p<.01$)
TOTAL	43,694	367		

This analysis confirmed our expectations of significant differences among schools within the target classification. It is still somewhat early in our discussion to talk about specific implications. However, we may suggest at this point that program design must concern itself with the school(s) in which the program is to operate, for target schools are different from one another.

School Clusters. Finding an overall significant difference is, of course, only half our question. We wished next to describe in some fashion where these differences were located and if these differences seemed to make any difference on some other criterion. Before we could turn our attention to these matters, we wanted some confirmation that the difference

between schools in reading pre-tests was not limited to the second grade only. For each of 11 schools, 2nd and 3rd grade mean pre-test scores pooled within each school were used as criterion measures. Using an unequal N solution in a two-way analysis of variance, we obtained the following results:

1. Grades and schools effects were significant ($p<.01$). This was expected and confirmed in the data.

2. Grades x schools interaction was not significant ($F = 1.40$ with 10 and 491 df). If the Grade x Schools form had been significant, it would have meant that mean grades in some schools were not following the pattern observed in other schools, and that grade performance was dependent upon the school you were talking about instead of being independent of schools. Further, any finding of clusters of schools for the second grade would be valid for the second grade only. The finding of non-significant interaction effect supports our notion that, in general, schools tend to replicate their second grade relative position in the third grade as well.

To locate the differences within the second grade target school category, we analyzed our data with the Newman-Keuls procedure. The results suggested three clusters of schools, whose means were 42.7, 50.6, and 57.6 respectively. Whether these clusters hold parallel relationships across the school year will be considered later in this report. For the moment, we will describe an accidental finding that has an obvious a priori basis. During the data reduction procedure it became apparent that there was a correlation between school achievement and geographic location. With few exceptions the cluster groups nearly radiate from the center of the inner city, from high to low cluster group respectively. The schools included in each of these designations are shown in Table 10. A rough map of the target school area is shown if Figure 8 for the convenience of those readers not familiar with the Cincinnati School District.

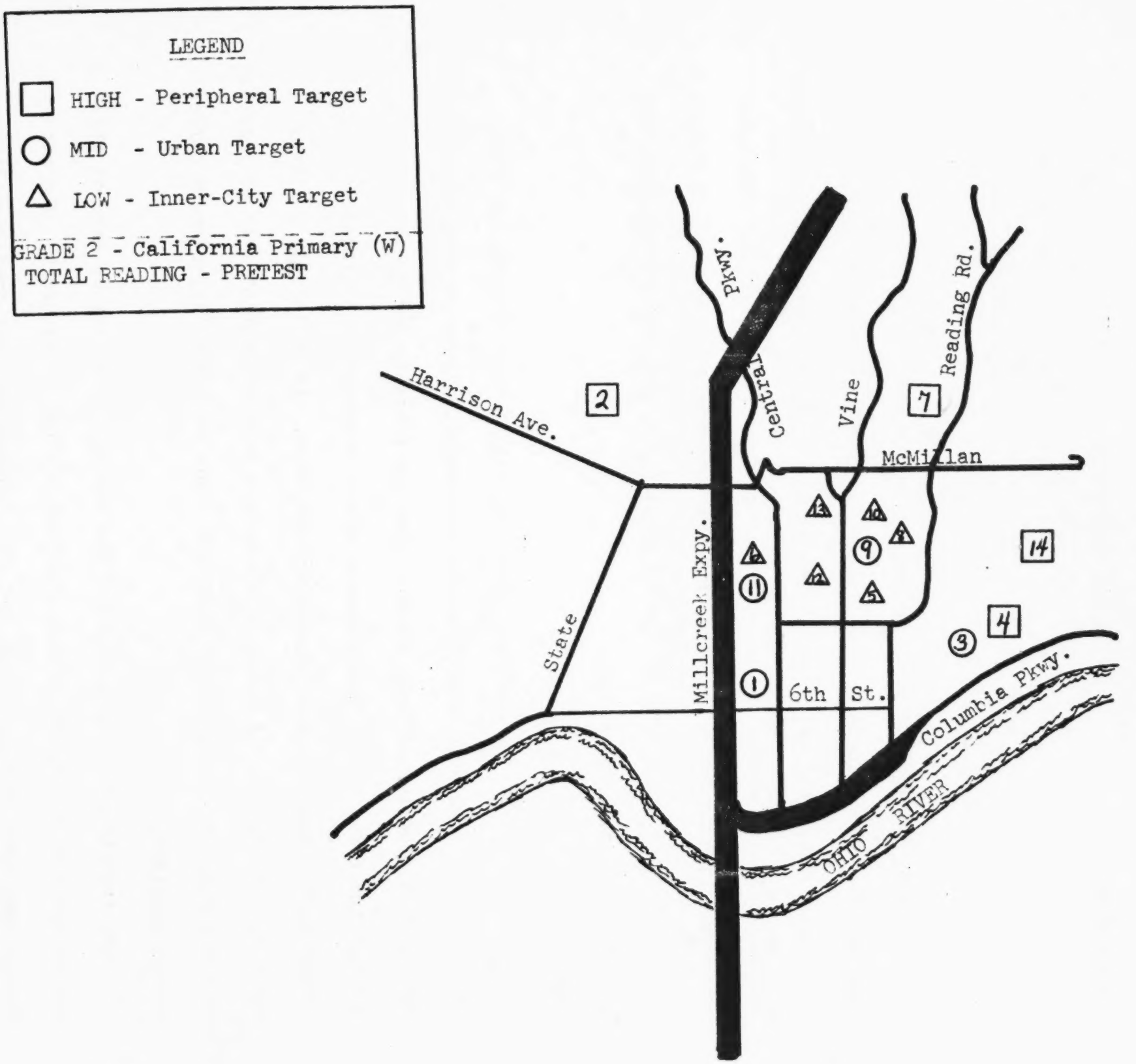

Figure 8. 'Target' School Area by Clusters.

Table 10. Target Schools by Clusters, 1968-69

High (Peripheral)	Mid (Urban)	Low (Inner-City)
(2) Millvale	(1) Hays	(5) Peaslee
(4) Mt. Adams	(3) Morgan	(6) Sands
(7) S. Avondale	(11) Washburn	(8) Taft Elem.
(14) Windsor	(9) Rothenberg	(10) Vine
		(12) Washington Park
		(13) Webster

Changes Within Clusters. Returning to our earlier question, we can now consider the changes within clusters across the three measurements in September, February, and July. The plan was to fit an orthogonal polynomial for each cluster across the three measurements. The analyses of variance are summarized in Table 11. The data are graphically summarized in Figure 9. Each data point represents 65 students, making a total of 195 students per cluster; 585 students overall.

RESULTS

The results of the analyses show that within each cluster the Total Reading raw scores were significantly increasing. Later we will consider the "growth profile" of each school. For the present, our question is whether the trend across measurements within clusters is a linear one or a linear plus a higher-order (quadratic) function. If it is only a linear function, it implies the means of the groups have a constant rate of increase. We are trying to say something about the shape of these "improvement curves" within clusters.

The results of the analysis for the lower cluster may be seen at the top of Table 11 and as the bottom function plotted in Figure 9. The non-linear component is significant ($p < .01$), suggesting that predictability

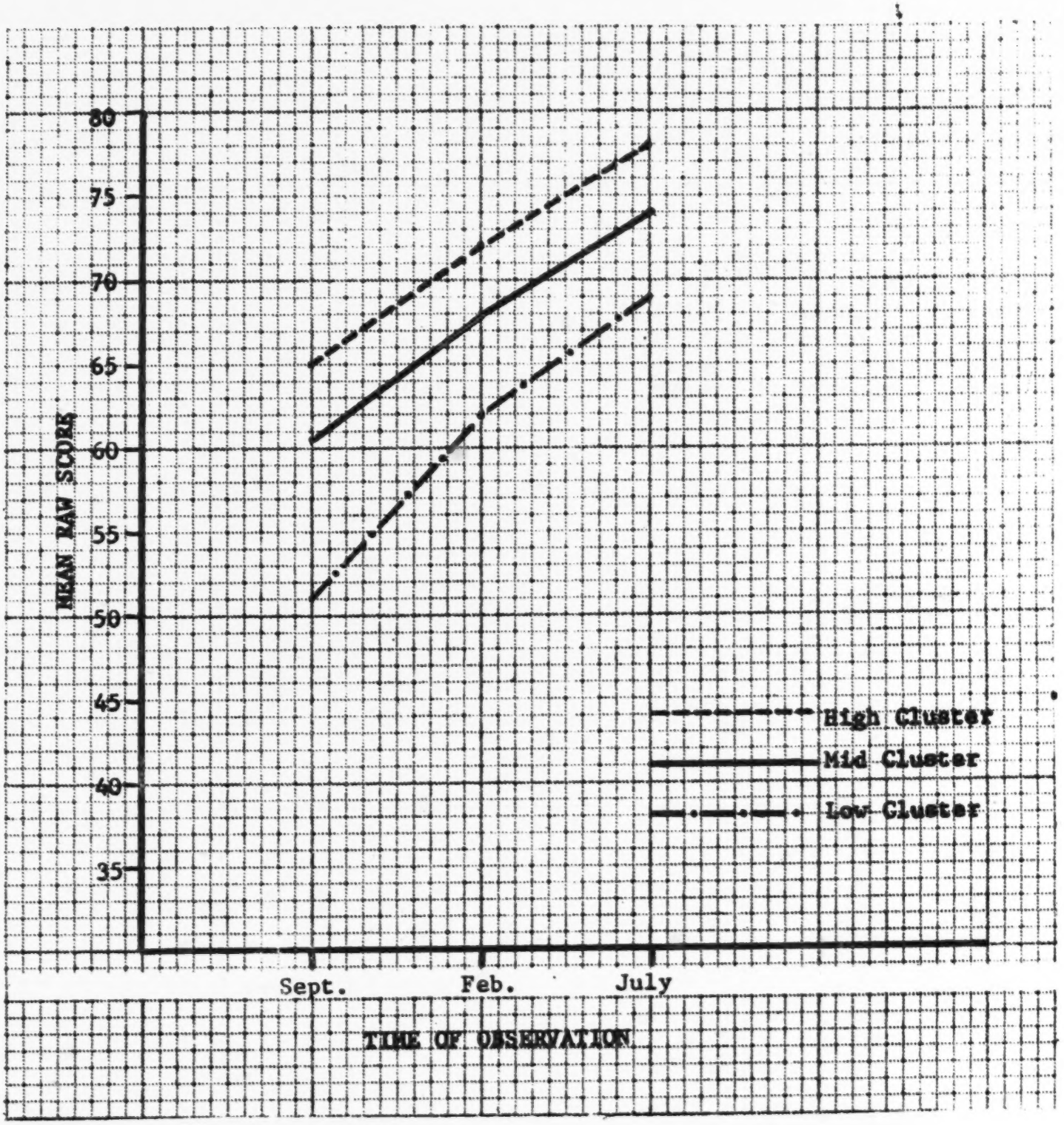

Figure 9. Means by Clusters Across Three Measurements in Grade 2 'Target' Schools on California Primary Reading for Total Raw Score (Form W).

Table 11. Analysis of Variance for Non-Linearity by School Clusters on California Primary Reading Test (Form W).

Source of Variance	SS	df	MS	F	r^2	η^2
Low Cluster						
Linear Regression	1,068.	1	1,068.	5.09*	.0257	.2656
Residual from Linear	40,488.9	193	209.78			
Departure from Linearity	9,969.5	1	9,969.5	62.74**		
Between Observ.	11,038.	2	5,519.	34.73**		
Within Observ.	30,519.	192	158.9			
TOTAL	41,557	194				
Mid Cluster						
Linear Regression	5,835.79	1	5,835.79	48.75**	.2017	.2036
Residual from Linear	23,101.28	193	119.69			
Departure from Linearity	57.0	1	57.0	0.475		
Between Observ.	5,893.	2	2,946.5	24.55**		
Within Observ.	23,044.	192	120.0			
TOTAL	28,937	194				
High Cluster						
Linear Regression	5,120.5	1	5,120.5	52.48**	.2145	.2154
Residual from Linear	18,751.0	193	97.57			
Departure from Linearity	21.48	1	21.48	0.22		
Between Observ.	5,144.	2	2,572.	26.37**		
Within Observ.	18,728.	192				
TOTAL	23,872	194				

*p <.05
**p <.01

for the low cluster "improvement curve" is increased by using a quadratic component. The order of means is 50.5, 62.4, and 68.7 from September to July, respectively. Though the means clearly increase, the quadratic component is reflecting the fact that the increase from September to February is roughly double the increase from February to July. That is, the trend across means significantly changes direction. The means for this improvement

curve may be described as increasing but decelerating. That this cluster alone decelerates may reflect the nature of the students sampled at this data point. It is possible that a majority of these students were not project students in that school for the preceding portion of the year. In this case, the mean of this group would not be expected to show a linear increase. If, on the other hand, these students had the benefit of year-long Title I efforts, we would expect that improvement would be increasing and possibly accelerating, but not decelerating.

The results of the analysis for the mid-cluster may be seen in the center of Table 11 and as the middle function plotted in Figure 9. The non-linear component is not significant, implying that the trend in means is a linear function of the observations, i. e., a straight line best fits the observed data points. For this cluster the means were 60.3, 68.2, and 73.7, more nearly reflecting stable increases between measurements. It is interesting to note that the mean function plotted for this group nearly bisects the functions of the other two clusters. The overall pattern in Figure 9 seems to reflect a better than chance degree of reliability.

The results of the analysis for the high cluster may be seen at the bottom of Table 11 and the top function plotted in Figure 9. As with the mid-cluster the non-linear component is not significant, implying again a straight line prediction to minimize errors.

Because the samples for all clusters were independent, there is no regression effect across a school year. Thus, assuming representative samples, the means give evidence of the additive effect of ESEA service. This highlights the need for a student to continue under ESEA programs for as long a time as feasible. The ESEA effects may be time dependent rather than immediate, but unless many students continue in the program we have no way of considering their achievement trends.

Changes Within Schools. We now turn our attention to how schools within clusters performed when the same students were observed in September (pre-test) and February (post-test). Of concern to us are two related questions: (1) What does the variance within clusters suggest? and (2) In terms of grade equivalents in achievement, what do the significant mean differences tell us about standardized improvement?

Variance within second grade cluster groups was computed in the ratio of pre/post. A resulting F ratio less than 1.0 indicates an increase in variability of criterion scores, while an F ratio greater than 1.0 indicates a decrease in student variability. Table 12 summarizes the variance ratios by school cluster.

Table 12. Variance Ratios by School Cluster

Cluster	N	F	Prob
Low	7	1.44	p> .25
Mid	4	0.78	p> .25
High	4	0.83	p> .25
Overall	15	1.18	

Clearly, none of the variance ratios pooled within clusters are significantly different from the state of no change at all. In later project evaluation, it would be desirable to look at any schools within the clusters whose variance ratios imply further analysis. The variance ratios within clusters for September-February California Reading Test scores (grade 2) are summarized in Table 13.

Inspection of Table 13 reveals that two schools showed variance changes that we might consider as reflecting significant changes. Both schools are in the low cluster group and for both schools the variance change is a

decrease in post-test variability. At least for these two schools, the overall effect was to make the group more like one another on this criterion measure after four months of ESEA treatment. One school in the mid-cluster and none of the high cluster schools had associated probabilities of <.25.

Table 13. Variance Ratios Within Clusters

Cluster	School	F	Prob.
Low	Taft	0.94	>.25
	Garfield	2.21	<.10*
	Wash. Pk.	2.25	<.05*
	Peaslee	1.11	>.25
	Sands	1.49	<.25
	Vine	0.88	>.25
	Webster	1.20	>.25
Mid	Rothenberg	0.71	>.25
	Washburn	1.66	<.25
	Hays	1.04	>.25
	Morgan	0.72	>.25
High	Millvale	0.84	>.25
	S. Avondale	0.92	>.25
	Windsor	1.13	>.25
	Mt. Adams	0.63	>.25

One of the important implications of a significant decrease in variance coupled with a significant mean increase is that students are improving markedly and are performing more like one another on the post-test. This interpretation is tendered upon the size and sign of the linear correlation between the pre-test and gain on post-test. Table 14 summarizes Low, Mid, and High Cluster mean gain, grade equivalent gain, significance of the mean gain, variance ratios, and the linear correlation (pretest - gain) with its associated probability for schools within clusters. Since the elements of performance shown in the table represent mainly descriptive data necessary

to at least suggest sources of change within a school, we will refer to it as the "improvement profile."

Table 14. Improvement Profiles for Schools Within Clusters on California Primary Reading Test (Form W) in Grade 2.

	N	Mean Gain	Gr. Eq. Gain	Mean t	Variance F	Correlation rxy
Low Cluster						
1	63	14.8	+ 0.3	13.3*	0.9[illegible]	-.4165*
2	33	13.7	+ 0.4	9.1*	2.21(<.10)	-.8032*
3	61	12.1	+ 0.5	9.3*	2.25**	-.6042*
4	31	12.9	+ 0.4	7.6*	1.11	-.6991*
5	56	11.3	+ 0.3	6.8*	1.49	-.4514*
6	42	16.9	+ 0.5	10.6*	0.88	-.9576*
Mid-Cluster						
1	46	9.6	+ 0.4	7.3*	0.71	-.2764 NS
2	28	14.7	+ 0.5	7.2*	1.66	-.7168*
3	76	6.9	+ 0.3	6.4*	1.04	-.9478
4	29	6.3	+ 0.2	4.5*	0.72	-.2762 NS
High Cluster						
1	52	7.3	+ 0.3	6.6*	0.84	-.3449**
2	53	12.2	+ 0.6	10.3*	0.92	-.8102*
3	32	10.1	+ 0.4	8.9*	1.13	-.3576**
4	30	7.4	+ 0.3	5.3*	0.63	-.5884*

**p <.05
*p <.01

There are several interesting patterns emerging in Table 14. We will look first at overall trends and then focus on each cluster separately. All schools reflected significant gains (relative to their own pre-test performance) in Total Reading raw-score on the February post-test (p <.01). The grade equivalents of these gains are about at the level we would expect from non-target groups. The trend in the gains is reflected in fourteen negative correlations, of which ten have associated probabilities of less than .01. Two of the schools also show significant variance decreases for

this post-test (p's< .10, .05).

The non-zero negative correlations (pretest - gain) within schools suggest that the children on the lower side of the pre-test mean made the greatest gains on the post-test. The significant mean differences are therefore due to a composite of regression effects, maturation, ESEA effects, and some effect due to the standardization of the California scale.

In the low cluster, children with the lower pre-test scores made the greatest gains on the post-test. In fact, for four of the six schools the gain would have been significant even if the pre-test mean had been as much as 5 points higher. The tests and negative correlations were significant ($p < .01$). The median correlation coefficient was .6516 for these six schools. Why should the students lower on the pre-test make the larger relative gains? Two alternative hypotheses present themselves: statistical regression toward the mean and/or remedial and enrichment methodology operating most effectively with the below mean (within group) student. Consider too, the fact that these students are scoring initially at the lower end of the test score scale and that reliability decreases at the high and low points. It should be noted that the grade equivalents of their raw score gains are about the amount and direction expected of non-target school students.

In the mid-cluster we again note significant gains relative to the pre-test score. However, two of the four correlations are not significantly different from zero. This implies that, for the non-negative correlative schools, gains were made from all points of the pre-test scale. This state of affairs would be most likely if, in fact, the teaching methodology was more than minimally responsible for the observed gains.

In the high cluster we observe significant mean gains, grade equivalents of these gains at about expectancy for non-target schools, and the signi-

ficant negative correlations. The factor of statistical regression is again involved and contributes to the significant mean effects we observe. It should be noted that perhaps the best test of the efficacy of the Title I efforts for these students will be their performance in the following academic years. In view of the fact that previous research generally notes progressive losses rather than gains, we consider the present finding as more than suggestive and hopeful of positive change.

One of the perplexing problems we have encountered is in attempting to predict what should be happening within a given ESEA population over time. There are at least two positions taken in this regard.

1. The effect of ESEA Title I efforts, if students are continued in the program, should be to elevate those students performing below the tenth percentile. Over years, then, the effect should be an elevated tenth percentile grade equivalent. Since all students would be benefitting, the overall change should be a mean increase, with variances remaining about the same.

2. Students performing near the lower tail of the performance distribution will benefit from ESEA Title I efforts differentially, depending upon the reason(s) for their less than adequate performance. Unquestionably there are students performing poorly who are doing so for non-academically related reasons. These students ought to respond positively to Title I efforts. There are also students who are unable to benefit from this instruction. Surely they will improve, but if one is looking at an entire distribution, these students will always be near the bottom. Obviously, we have not developed truly adequate methodolgy for them, because we have not really identified them except as the rather ambiguous group called "underachievers." In fact, many of them are probably not underachievers relative to their capacities. They are underachieving only relative to "average achievers." The predicted effect on the entire distribution we feel would be no overall change except for increases in frequencies of students relatively low on the score scale. If Title I efforts truly take hold, the overall variances would increase while the mean would show a slight upward movement.

These two positions can be set to empirical investigations. They constitute an area of research we feel warrants much effort. Until we expand our question-asking techniques, we will be held back within the confines of post-hoc analyses. The questions should be asked first. Future issues of this Journal will contain reports we feel are based on this notion.

Target vs. Control Schools. Traditionally the comparison groups for the target school population have been a group of schools referred to as "controls." If Title I efforts have been sucessful over time--and again assuming that our criterion measurement(s) adequately reflect the possible changes--then the target school distribution ought to have changed relative to the "control" distribution. The general rationale for this question evolved from the alternatives presented previously. The data to be discussed here do not focus on those predictions. They consider the related aspect of distribution changes within school years (2), between groups (Target, Control).

For all three comparisons raw score distributions were used, rather than grade equivalents. Figure 10 summarizes the target and control distribution on the Metropolitan Primary (I-A) Reading Test for grade 2 in 1965-66. Most noticeable is the similarity between distributions in four principal characteristics: control tendency, variability, skewness and kurtosis. Figure 11 summarizes the target and control distribution on the Metropolitan Primary I, grade 2, in Arithmetic Concepts and Skills during the same year. The overlapping is consistent between distributions the differences appear to be small. Tests of significance for both sets of distributions are summarized below.

TEST	Dmax	prob.
Metropolitan Primary I: Reading	.0216	> .25
Metropolitan Primary I: Arithmetic Concepts and Skills	.0241	> .25

It may be concluded that for these data both distributions came from the same population. The "control" schools were adequate controls for the target group in these test areas for 1965-66.

Comparing distributions of these groups on the Stanford Achievement

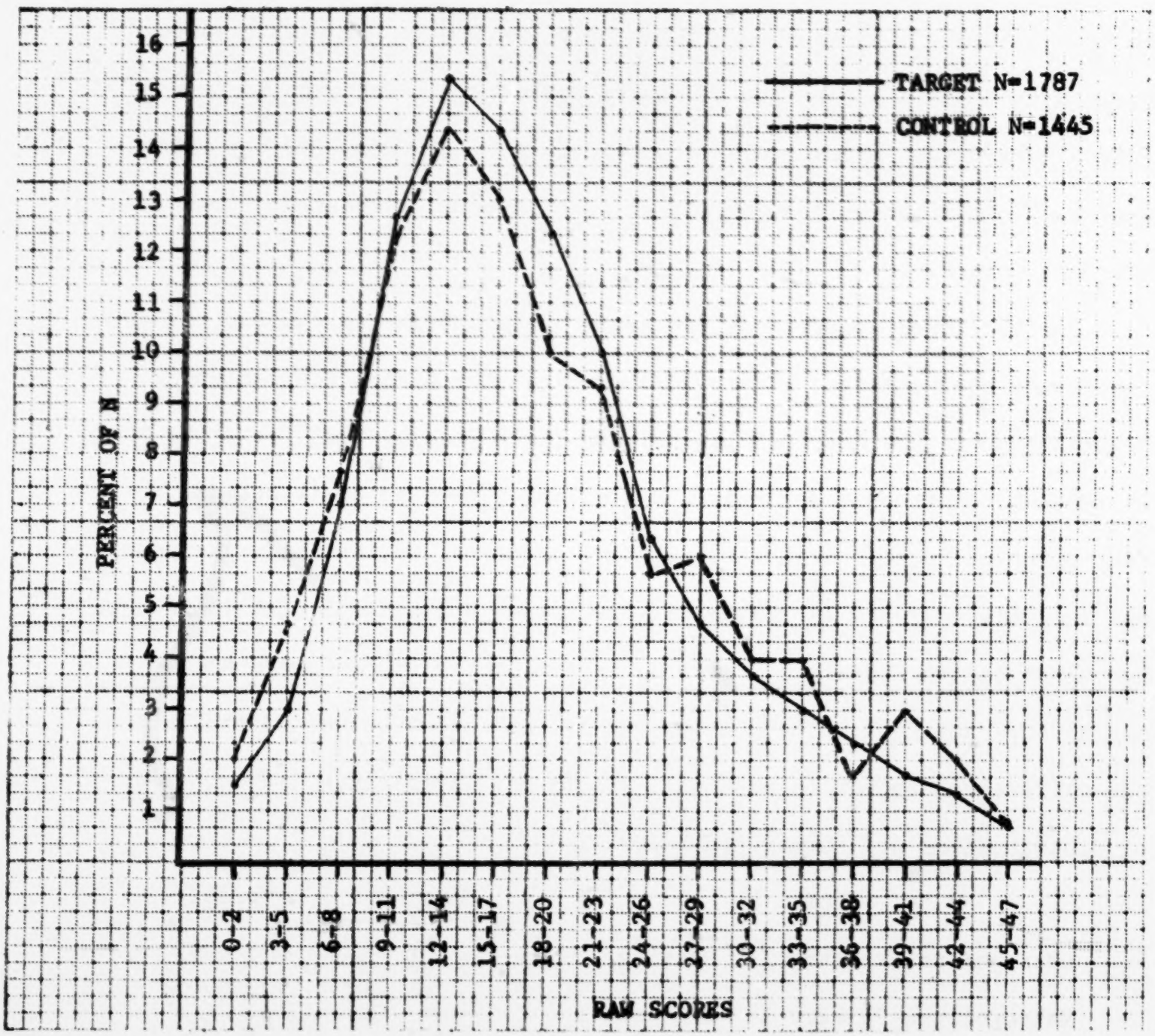

Figure 10. Target and Control Metropolitan Primary (I-A) Distribution for Grade 2 Reading, 1965-66.

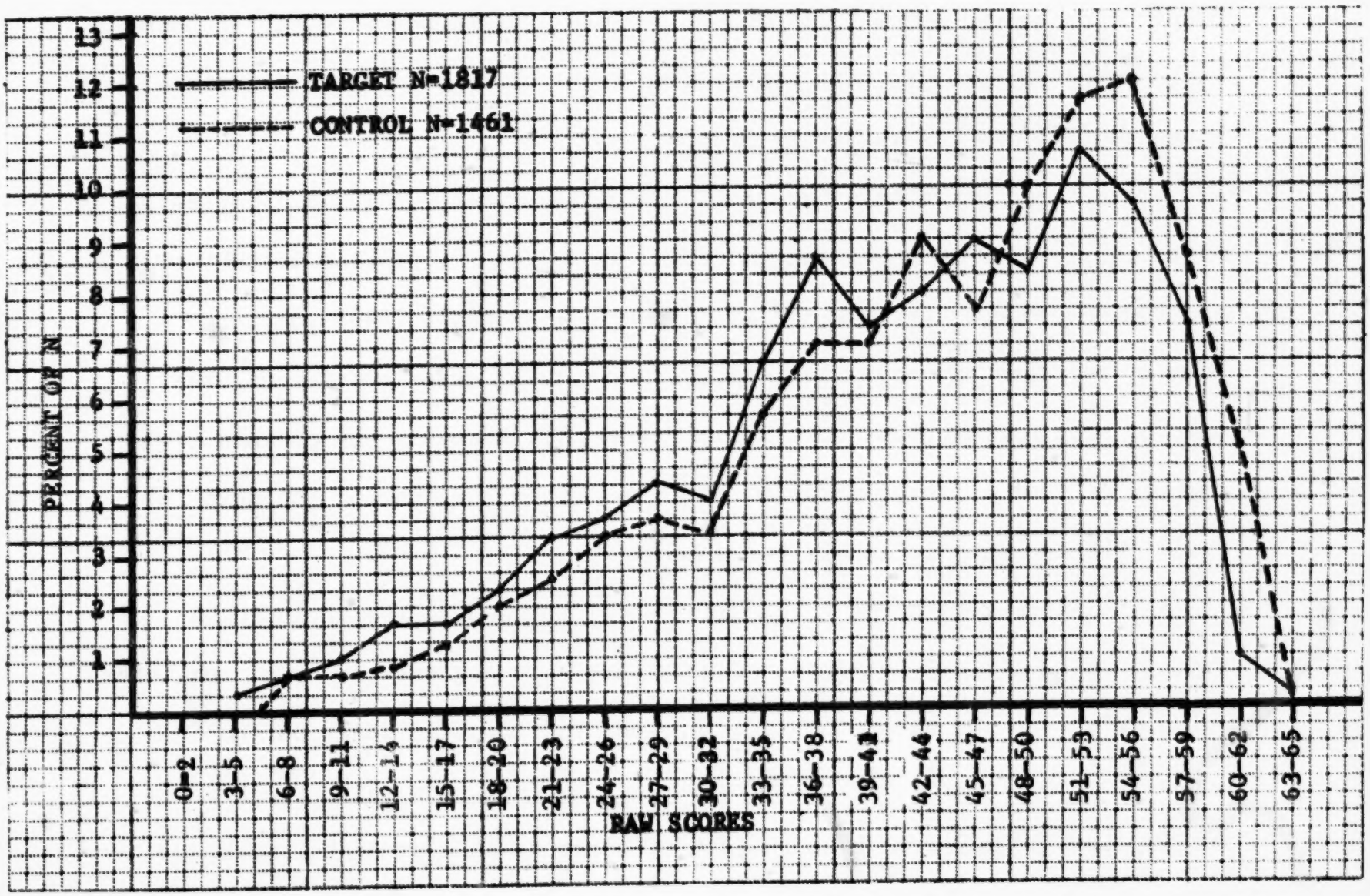

Figure 11. Target and Control Metropolitan Primary (I) Distribution for Grade 2 Arithmetic Concepts and Skills, 1965-66.

Primary (I) Form W Paragraph Meaning scores in 1968-69, we note a different result (Dmax = .0511, $p < .001$). Here the distributions are significantly different. The raw score scale goes from 9 to 40+. For the target groups 80 per cent scored below 16.5, and 92 per cent scored below 18.5. In both cases these percentages were higher than those observed for control school students (72% and 86% respectively).

This large percentage may reflect a basic problem in Title I implementation, rather than general ineffectiveness. A key problem is that of continuing project services for all pupils. If students have completed a year of services and have made a significant skill area improvement, the mean of that distribution surely increases. If, however, any sizable portion of that improved group no longer receives services in the next grade, the increase is likely to be lost.

A related problem has to do with the criteria used for including a pupil in ESEA Title I services. Surely there are a great number of realities which determine the needs for such services and these no doubt differ from school to school. For many children (we do not know how many) the primary reality in life may well be a sub-set of services such as dental work, that are not academic in nature. The services goal for him is the treatment of the array of dental problems. We hope his academic performance increases as a result of the services, but this is not the primary goal. The criterion measure of choice would be freedom from cavities and the associated symptoms not achievement measures. We need to know the services and inclusion criteria for each student. In this way research can attempt to select or develop criterion measures suited to the needs of the set(s) of ESEA services involved.

Cumulative Deficit. One of the major concerns of Title I personnel and participants has been the apparent increasing deviations from grade

expectancy of students as they move from lower to the higher grade levels. To look again at this matter, we must consider deviation from national norms across grade levels in 1968-69.

Thirty students were randomly selected from each of seven grade levels for this analysis. The criterion measure was the student's grade equivalent as a deviation from grade expectancy based on test publishers' norms. Across grades there is a considerable variety of tests as shown below.

Grade Expectancy		Standardized Test
3.0	(Sept. '68)	California Primary - Reading Comprehension
4.2	(Nov. '68)	Iowa Test of Basic Skills (IV) - Reading
5.7	(Apr. '69)	Stanford Achievement (Inter.II) - Para. Mng.
6.5	(Feb. '69)	Stanford Achievement (Inter.II) - Para. Mng.
7.8	(May '69)	Test of Adult Basic Education (M) - Reading Comprehension
8.8	(May '69)	Test of Adult Basic Education (M) - Reading Comprehension
9.8	(May '69)	Test of Adult Basic Education (M) - Reading Comprehension

This variety of tests poses some real questions about the psychological meaningfulness of the observed scores for comparison purposes. A standard score transformation was performed on the data to at least approximate numerical continuity. The mean transformed deviations from expectancy are shown in Figure 12.

The horizontal axis represents the no-deviation-from-expectancy condition. Clearly, there are larger deviations as one moves along the grade scale. This is reflected in the analysis of variance (F, 1 and 203 = 27.1; $p < .001$). Three orthogonal comparisons were performed. The first considered whether or not the mean deviation for groups with grade expectancies of 5.7 and 6.5 were significantly different. The comparisons revealed no significant dif-

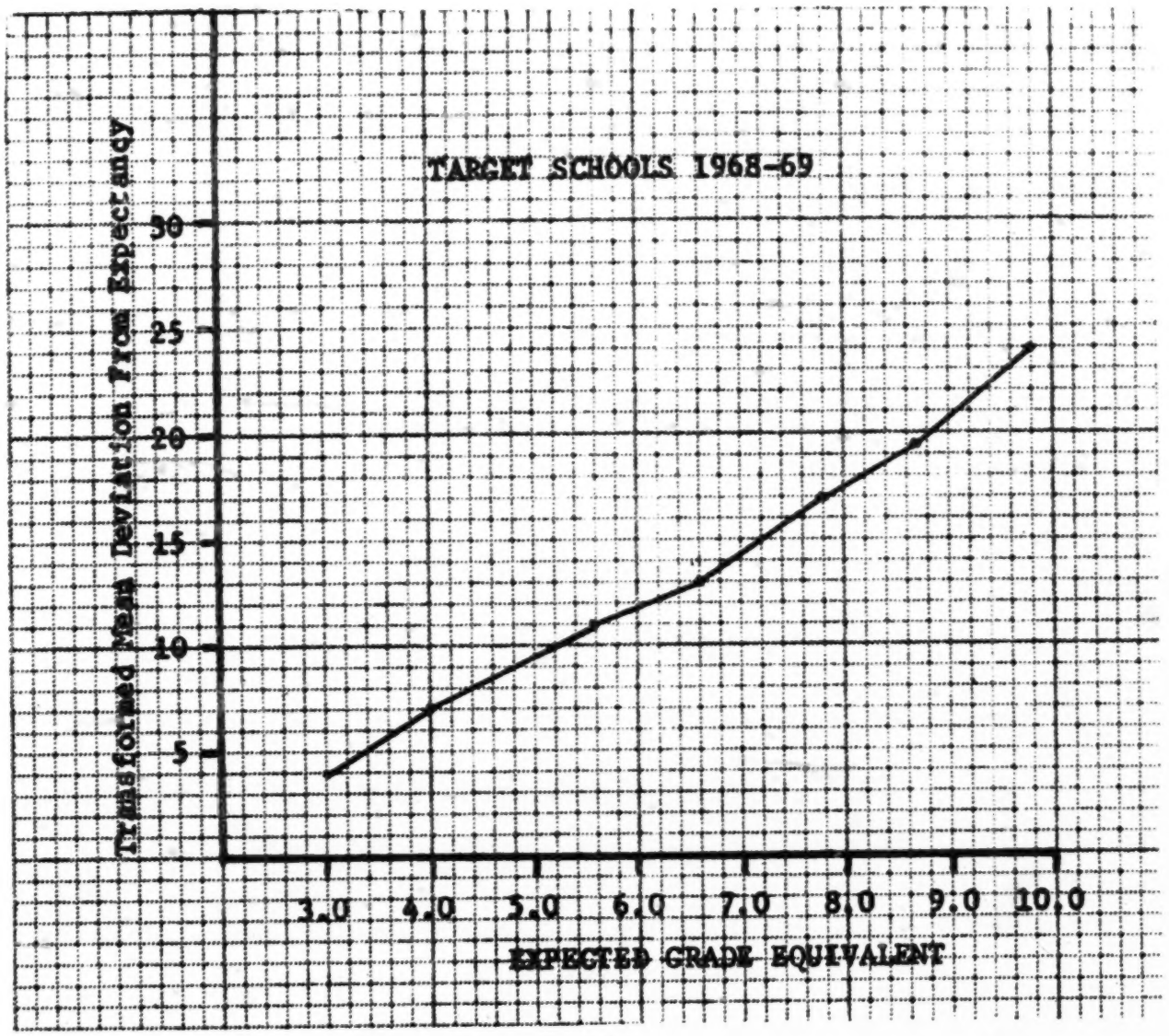

Figure 12. Mean Standard Score Deviation By Grade Level From Expectancy in 1968-69 (N=240).

ference. The comparisons revealed no significant difference in deviation between these groups (F, 1 and 203 < 1.0, NS). The second comparison considered whether or not the average of these two groups reflected significantly less deviation from expectancy than the group whose expectancy was 8.8. In this case the data show a significant difference in the mean deviations (F, 1 and 203 = 15.0; $p < .001$). The third comparison tested for difference between the adjacent groups whose grade expectancies were 3.0 and 4.2. The results of that analysis show a large mean difference (F, 1 and 203 = 6.8; $p < .01$).

While we have not exhausted the set of possible comparisons, we feel we have learned enough from the three made to discuss some important

aspects of the deviations. The first comparison found in the transition from primary to intermediate grades reflects a significant increase in deviation from expectancy. The second comparison between the average of groups 5.7 and 6.5 with group 8.8 showed the transfer from intermediate to junior high to also be of significant magnitude. The difference between groups 5.7 and 6.5 was not significant. It seems as though deficit within sets of grades (Primary and Intermediate) cumulates, but most clearly shows itself in the transition from Primary to Intermediate and then well into junior high school levels.

1. The deficit is cumulative, but not linearly additive;

2. As a group for these target school students the deviation for expectancy seemed to slow down but not stop;

3. With upper grades the deviation appears to increase exponentially. The high school then becomes heir to large numbers of students well below grade level. This suggests:

   (a) the vital role of continued and expanded summer school opportunities for these students;

   (b) the need to take repeated careful looks at the curriculum available, particularly between sets of grades (primary to intermediate to junior high school) apparently students are sensitive to such changes as departmentalization, specific emphasis, etc.

   (c) the importance of pre-school enrichment experiences for these youngsters. Our data began at a grade expectancy of 3.0. The deficit of which we spoke seems to begin before the child walks into school.

Turning our attention to Figure 13, which graphically depicts the disparity between the target school mean reading achievement scores and the city-wide means, we see that the seventh grade target school mean comes within three months of the city-wide mean, of which the target schools are a part. This is encouraging since the seventh grade was the only one in grades four though nine that received any appreciable Title I service. The other data in Figure 13 seemed to be supported by those seen in Figure 12 with the exception of grade seven, i.e., that target schools are negatively and

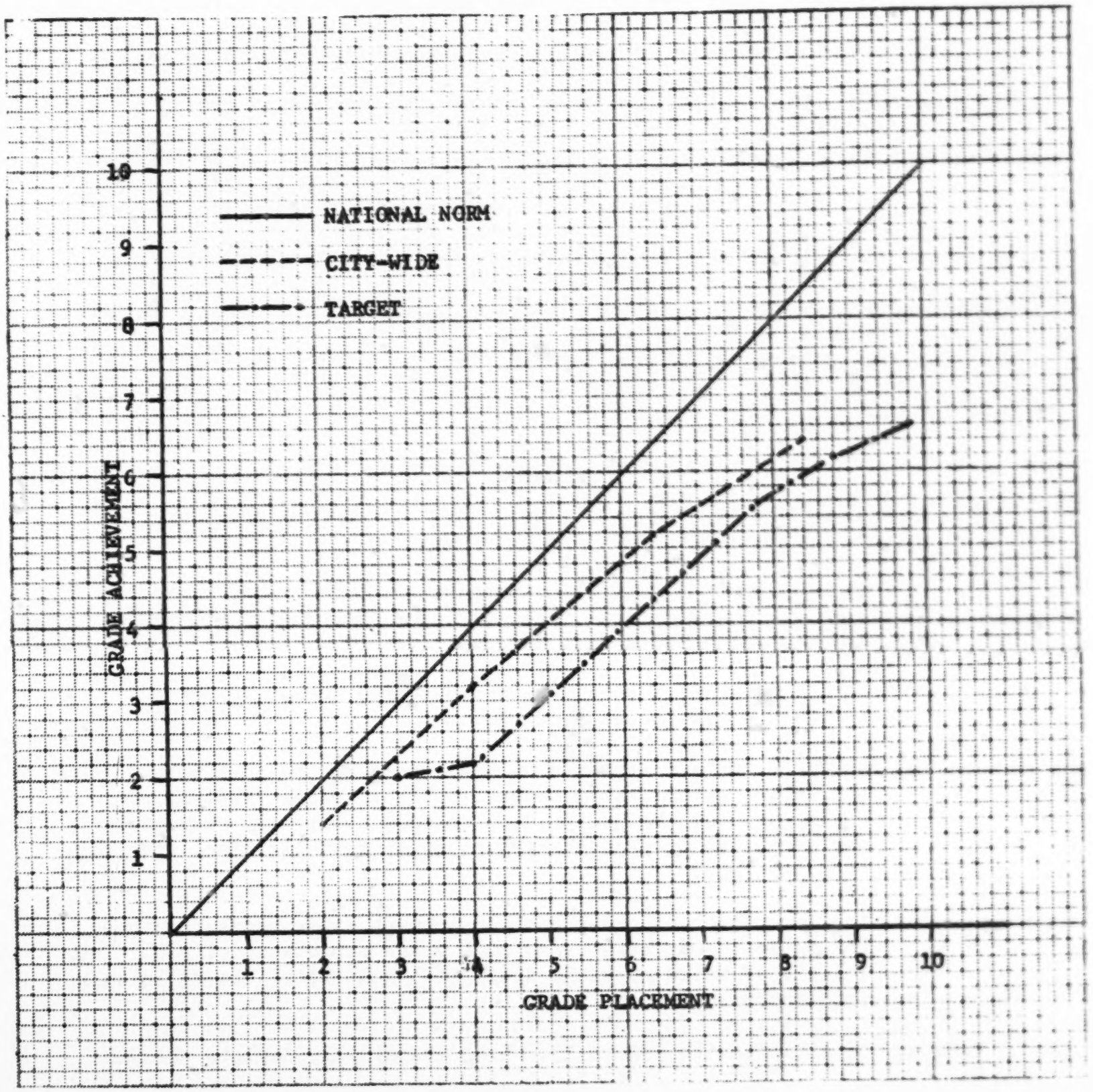

Figure 13. Comparison of Mean Scores of Achievement in Reading of Target Schools with City-Wide and National Norms.

increasingly diverged from the national norms. Fortunately, many of the seventh grade project youngsters served in 1968-69 were retained in project activities for 1969-70; we are following their progress closely this year with the hope that the gains and treatments will be additive.

School Achievement Predictions. From data in the local school management information system, achievement predictions were made for each elementary school in the system. Using previous achievement, scholastic aptitude, and socio-economic status as predictors may provide a more realistic expectancy than national norms. This section looks at differences between a school's observed score and its predicted score based on a regression equation.

Six equations were developed for predicting median sixth grade achievement in February, therefore the Stanford Achievement Paragraph Meaning subtest and three of the Stanford Arithmetic Computation subtest. In each case the three predictors refer to previous year measures. Table 15 summarizes the predictors, the correlation coefficients, and the standard errors of prediction.

Table 15. Predictors, Correlation and Standard Errors of Estimate of Each of Two Criteria Over Two Years.

Criterion	Predictors	1967-68 Correlation	1967-68 SE	1968-69 Correlation	1968-69 SE
Stanford Achievement Paragraph Meaning Q2	Para. Mng.	.914	.417	.928	.362
	I.Q. (Q2)	.915	.382	.929	.385
	SES Factor	.867	.467	.881	.478
Stanford Achievement Arithmetic Computation Q2	Ar. Comp.	.803	.500	.856	.178
	I.Q. (Q2)	.734	.505	.887	.448
	SES Factor	.803	.553	.791	.493

The variance being accounted for by the predictions range from 84 per cent to 54 per cent. It would be instructive to consider the partial correlation coefficient of these predictions, and further study will consider these. With a single exception, the predicted score (either Paragraph Meaning or Arithmetic Computation) $\pm$ 1 standard error ($p = .68$) encompases about one full grade level. The range is from only 1.0 to .7 excluding the solitary smaller standard error for Arithmetic Computation in 1968-69.

Among other things, this suggests the possibility that the distribution may contain some departures from linearity. This would mean that the regression equation would be more accurate if other terms were added to get the predicted score. Whether or not additional terms are needed will be considered in future research.

In Table 15 we note that socio-economic status had the largest standard errors associated with it. Tentatively some of our present data suggest that for SES the distribution is J - shaped rather than linear.

Figures 14 and 15 summarize the deviation of observed scores from predicted scores on Paragraph Meaning and Arithmetic Computation respectively for 1967-68 and 1968-69 within each of the three school groups (Target, Control and Others). Figure 14 deals with Paragraph Meaning Q2 values. The standard error boundary is indicated by the vertical dash lines. There are no significant differences between target schools for the two years on their deviations from predicted scores. For the control group the 1968-69 data showed all schools within the limits of predicted score $\pm$ 1 SE. For the other group the 1968-69 distribution is more normal with a slight preponderance of observed predicted scores.

Examination of the graphs in Figure 15 shows that nearly all of the schools represented in the 1968-69 series scored within one standard error of the predicted mean. We may infer from this that:

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1. Regression reared its ugly head with unusual ferocity.
2. The range of 1968-69 scores is restricted. Historically, arithmetic achievement scores have been more closely grouped than any of the other skill areas.

CONCLUSION

It would be pleasant, indeed, to state here that X per cent of the target school students made X per cent gain; we could then state that for every dollar spent, X amount of gain was realized. In the near future, this may be possible, but for the present, it's obviously not nearly that simple.

Looking at our data realistically, we can see one encouraging finding in the apparent increase in achievement scores above baseline data for seventh grade target pupils. Another, and possibly the most important, finding is that the rate of achievement for second grade target pupils is close to that which is considered normal for average groups. Polynomial data suggests that the effects of the target treatment are possibly additive, which underscores the importance of students' being retained in project activities.

The defining of three clusters of elementary target schools allows us to reduce experimentally the variance of test scores by blocking on the three clusters. It is interesting to note that all three gain functions are parallel and probably correlate with SES.

CHAPTER 8

PROMOTION RATES: A PREVIEW

We summarized:

(1) previous literature for promotional rates in Cincinnati;

(2) the rationale for 'critical' grades;

(3) the notion of a 'loss function.'

We looked at:

(1) promotion rates in grades K-12 for Target, Control and City-Wide schools over the years 1960-61 to 1964-65 and 1965-66 to 1968-69.

We found:

(1) secondary level target schools promote a lower percentage than other schools;

(2) first-grade promotion rates exceeded the highest promotion rate of any of the three previous academic years;

(3) graduation rate for target high school students has increased though it is below baseline values;

(4) the overall picture of promotion rates increasing with the exception of the tenth grade.

CHAPTER 8

PROMOTION RATES, 1968-69

BACKGROUND

In addition to the evaluation of pupil achievement by standardized test scores (Chapter 6), a less formal index of pupil academic progress, namely promotion rates, has interest value in evaluating the overall picture of Title I activities. Admittedly, promotion criteria vary from teacher to teacher; the criteria are subjective in nature; each school probably has established certain standards, which will be inconsistent with other schools. But what promotion rates do represent is the conglomerate professional opinion concerning the success of the student population.

Consistent with the reporting methods used in previous years, promotion rates are expressed as the quotient resulting from the ratio of the number of pupils promoted, divided by the membership at the end of the year, i. e., the percentage of pupils finishing the school year who were advanced to the next grade.

The reader should bear in mind that in the Cincinnati elementary schools (K-6), a child is either completely promoted or retained for a full year's work. At the secondary level, a pupil need fail only more than half of his subjects in order to be considered as having failed. He may, therefore, be officially counted in one grade yet taking some subjects in different grades.

The following summaries reflect the observed trends for promotional rates referred to in previous issues of the Journal of Program Research and Development. It provides a context against which the present data may be highlighted.

The first year's Title I evaluation report established a five-year promotion baseline for primary target, secondary target, and control schools. Compared with these rates were the percentages for 1965-66, the first (partial) year of Title I services. From this initial comparison several conclusions emerged:

1. Promotion rates tended to rise from a low at first grade level through each of the five succeeding elementary school grades, then to decrease at the seventh grade, and generally to increase again through the other junior high school years.

2. Control schools showed higher promotion rates than target schools.

3. Primary target promotion rates rose in 1966, especially at the junior high school level; secondary target rates showed a marked decline.

The 1966-67 reports noted the secondary target schools "recovering" from the previous year's low promotion rate. Thus, the net effect for all three classes of schools was an increase over the five-year baseline period. In 1966-67, primary target schools had the lowest percentage of promotion followed by secondary target, and then schools in the control designation.

The following conclusions were borne out by the 1967-68 promotion rate data:

1. Promotion rates among target school pupils declined in 1967-68.

2. Primary target grades accounting for the decline were 1, 2. 7, 8, 9 and 12. With the exception of grades 8 and 9, all showed an increase over the previous year among control schools, where promotion rates were generally stable.

3. Promotion rates in grades three through six showed a pattern of general rise, while pupils in lower grades were being retained with increasing frequency.

4. The largest decrease in target school promotion occurred at grades 9 and 12.

RESULTS

Table 16 shows K-12 target, control, and city-wide promotion rates for the pre-Title I baseline period (1960-61 to 1964-65), and for each of the four years since the beginning of Title I. Examination of the data over the five points of comparison reveals no clearly defined trends over all four years of Title I services. Secondary level target schools however, continue to promote a lower percentage of students than the other schools.

The underlined rows with Roman numerals in Table 16 set off what we consider to be the "critical" academic years in the school history of any student. The rationale for such "critical years" is summarized below:

Designation	Rationale
I	- successful completion of grade 1 - has the child mastered basic learning skills essential to acquistion of further learnings?
II	- successful completion of first junior high school grade - were the student's achieved learnings sufficient for minimal junior high school work and sufficient for continued success?
III	- successful completion of sophomore high school year - were the student's achieved learnings sufficient for high school level work?

Before beginning our consideration of promotion rates specifically with the "critical" years, it might be pertinent to summarize the overall results across all groups, grades and years.

Table 16. Promotion Percentages for Three School Groups Within Grades K - 12[b] Across Four Years.

GRADES	TARGET Base Line c	65-66	66-67	67-68	68-69	CONTROL Base Line c	65-66	66-67	67-68	68-69	ALL SCHOOLS Base Line c	65-66	66-67	67-68	68-69
12	91.8	89.0	86.5	81.0	84.0						93.8	93.1	94.1	94.2	94.3
11	91.5	85.8	86.5	85.0	87.0						93.4	92.5	91.7	87.8	89.7
III[a] 10	87.9	90.4	85.8	88.4	68.8						90.7	90.4	91.6	86.4	87.5
9	88.8	94.7	92.0	84.6	90.3	93.2	95.5	94.8	93.1	95.4	91.5	92.0	93.3	91.9	91.8
8	88.6	92.8	91.9	86.7	88.3	91.8	92.7	94.1	92.0	92.0	91.7	91.8	94.6	91.3	93.2
II[a] 7	88.9	90.7	92.3	89.6	90.7	93.1	94.6	93.3	94.6	95.4	91.5	91.2	94.1	92.1	94.0
6	98.6	98.5	98.9	99.9	99.8	97.0	99.8	99.6	99.8	99.7	98.5	99.4	99.5	99.7	99.7
5	96.6	97.4	97.3	99.5	99.4	92.2	98.5	96.9	98.0	97.8	96.5	97.7	96.8	98.3	98.8
4	94.3	94.8	96.6	96.4	97.9	91.3	97.6	96.4	97.0	95.9	94.9	96.3	96.6	96.8	97.5
3	94.4	93.8	97.2	97.4	98.3	93.6	97.5	98.2	97.4	98.0	95.8	96.8	97.7	97.6	97.9
2	93.5	94.2	93.8	90.5	98.4	93.9	96.9	94.9	95.0	97.1	94.1	95.7	95.3	95.2	96.5
I[a] 1	81.7	80.2	79.7	78.7	87.0	75.9	86.3	78.9	81.1	85.5	85.5	88.7	86.3	87.1	90.2
K	99.8	99.9	99.5	100.0	99.8	99.9	99.7	99.5	99.0	99.8	99.8	99.9	99.8	99.8	99.8

[a] denotes "critical" academic years

[b] target grades 10 - 12 based on data from one high school

[c] average for years 1960-61 to 1964-65

1. With few exceptions, promotion rates across years and within groups have increased. The observed decreases noted in 1967-68 seem to have been unusual.

2. First-grade promotion rates across years within groups have exceeded the highest observed promotion rates of any of the three previous academic years.

3. The graduation rate for target high school students has increased, though is still below the baseline value.

"Critical" Years. The assessment of promotion at the end of grade one is of vital concern to all educators as well as to the student himself. Learning to read is among the more vital specifics we hope to teach the child. If he is able to demonstrate a competency in the acquisition of reading skills, the assumption is made that he will be able, through reading, to teach himself more things than would be possible for him to acquire without such a tool. He is, therefore, a candidate for promotion. The problem enters when a student's level of skill acquisition is deficient or questionable. The decision must be made whether such skills could be acquired in the next grade or whether promoting him would lead to compounding complications, serving the student in no observable manner. Surely this problem is complex and must be handled on an individual basis. We may note that promotion rates for all first grades, including target pupils, show a marked increase over the previous year levels and exceed the baseline rates for the group. At least two alternative hypotheses present themselves:

1. increased promotion reflects a change in general administration policy and/or

2. pupil achievement has increased

If Hypothesis 1 were true and students were being promoted independent of their skill acquisition and achievement, then one would expect to find either no change or losses in standardized testing for students entering grade 2. The data to be presented in the project evaluation clearly do not support this view (though regression effects may moderate this interpretation

somewhat). Reading achievement appears to be increasing for the target schools pupils.

Entry into junior high school is accompanied by emotional-psycho-social changes. The onset of puberty, change of peer groups, etc. are well documented and need no description here. Suffice to say that it is a difficult period for the adolescent.

For purposes of discussion let us define a concept: "loss function." The loss function is the difference between those promoted to a grade less the percentage being promoted from that higher grade. Computing a loss function for the 1968-69 seventh graders would involve simply the difference between the 1968-69 per cent promoted for the seventh grade and the per cent promoted from the sixth grade for the previous year. This process is applied to determining the loss function for any two adjacent years. Loss functions are summarized below by school groups for grades 1, 7, and 10.

	TARGET			CONTROL			ALL SCHOOLS		
	66 67	67 68	68 69	66 67	67 68	68 69	66 67	67 68	68 69
Grade 1	20.2	20.8	13.0	20.8	18.4	13.5	13.6	12.7	9.6
Grade 7	6.2	9.3	9.2	6.5	5.0	4.4	5.3	7.4	5.7
Grade 10	9.9	3.6	---	---	---	---	0.4	6.9	4.4

Across grade 1 the loss functions are decreasing. For target schools an increase of approximately 42 per cent of the pupils promoted to grade 1 are judged as successfully completing that grade over the 1967-68 level. In the seventh grade the loss functions are highest in the target schools while the control schools show a decreasing trend. Explanation for such a finding would probably find correlation in reality situations such as

income, absenteeism, etc. In the tenth grade no valid data are available for computation of the loss function.

Academic problems aside, there are very real social implications incurred when a junior high school pupil is not promoted to senior high school. In the past, summer programs were available to help students prepare for high school. With the failure of the tax levy increase in 1968, no summer school was available. Therefore, students entering the high school in need of the summer program did not receive its benefits.

For the present year the promotion rates in grade 10 was 68.8 per cent. This figure was deflated by the number of students who might have succeeded had the summer program been available. Among these students the promotion rate may have been as low as 45 per cent.

If we consider the promotion rates for target school grades 10-12 as probabilities then the rough estimate of the probability of a target school pupil graduating from high school given that he complete grade 10 and that he does not become a dropout is about .86. Considering the category of all schools the estimated probability is approximately .94, under the same restrictions. Among target school students this represents an increase of approximately three per cent over the 1967-68 level.

SUMMARY

The overall picture of promotion rates looks encouraging with the exception of the 10th grade. Based upon the improved promotion rates, two inferences seem to be suggested:

1. Pupil achievement has increased and/or
2. promotion policies have changed.

Since we are not aware of any changes in policy regarding promotion criteria, the increased promotion rates are looked upon as probable reflections of increased pupil achievement.

CHAPTER 9

PUPIL ATTENDANCE: A PREVIEW

We defined:

(1) extraordinary conditions of inner-city environment which contribute to poor attendance;

(2) pupil accounting systems commonly used in secondary schools and the way some pupils may circumvent them causing an apparent increase in absenteeism.

We found:

(1) absenteeism is increasing in all grade levels in all types of schools.

CHAPTER 9

PUPIL ATTENDANCE, 1968-69

BACKGROUND

One of the devices which has been used as an indicator of student attitude is the school attendance and tardiness records. It is usually assumed that poorly motivated pupils will find a multitude of excuses for not attending school while children who are highly motivated will attend school despite valid reasons for excused absence. It should be pointed out, however, that children attending target schools often do have a multitude of real obstacles they must overcome almost daily in order to get to school on time, lack of clothing, lack of a functioning alarm clock, baby-sitting requirements are but three of a long list of common excuses found in ghetto schools which are virtually unheard of in suburban areas. After examining reports of visiting teachers in target schools, one is usually amazed that some students ever get to school at all.

The above observations were borne out in the first year (1966) of Title I evaluation when baseline data were established on average percentage of daily absence (APDA) over a five-year period among primary target, secondary target, and control schools. The baseline data may be summarized as follows: Secondary Grades (9-12) > Elementary Grades (K-8); Primary Target > Secondary Target > Control.

Differences among primary target, secondary target, and control schools at the elementary level were smaller than those at the secondary level, leading to the inference that absence yields a more sensitive reflection of pupil attitudes at the secondary level.

In 1967-68, the rate of acceleration of absence based on the unweighted average of absence rates in grades 1 through 9 decreased for target schools.

The percentage increase was, in fact, less than the [illegible] wide rate. Absence decreased in all target schools in grades [illegible] through 9, while increasing on a city-wide basis. Absence was still higher in the target schools, however.

METHOD OF ANALYSIS

In Table 17, absence rates for grades 1 through 9 in target schools are compared with similar rates in control schools and the entire system. Data for grades 10 through 12 are for the one target senior high school compared with all senior high schools in the system. All percentages shown are the unweighted means of the absence rates of the schools which fall into the particular categories.

RESULTS

Absence rates for all three school groups showed an increase for 1968-69; system-wide and control school absence rates increased at approximately the same rate as in the previous year, but not dramatically in any particular grade. Absence in target elementary schools showed a substantial but not alarming increase. Target school grades 7-12, however, had a sharp upward surge, which has not yet been fully understood by either school administrators or attendance officials.

One probable answer to the upswing lies not in actual pupil absence but in the pupil accounting procedures commonly used by most secondary schools. To explain further, homeroom is typically the first period of the day. It is during homeroom that the absence lists are made and sent to the school office to be compiled, published, and distributed to the teachers. If a pupil arrives after homeroom, he is supposed to report to the office to be accounted for and is usually assigned a detention or other punishment for his tardiness. Many tardy students, in order to avoid a punishment, simply do not report to the office and take their chances that their teachers will not notice their names on an absence list which contains 150-

Table 17. Average Percent of Daily Absence by Year and Type of School.

Grade	TARGET					CONTROL					ALL SCHOOLS				
	Base-Line	65-66	66-67	67-68	68-69	Base-Line	65-66	66-67	67-68	68-69	Base-Line	65-66	66-67	67-68	68-69
12	7.0%	9.2%	10.1%	12.7%	17.9%	----	----	----	----	----	6.4%	7.3%	8.4%	11.0%	11.3%
11	9.7	12.6	13.4	15.4	24.7	----	----	----	----	----	7.5	8.9	9.4	12.8	14.0
10	12.3	12.8	14.4	18.2	26.1	----	----	----	----	----	9.2	10.2	10.7	14.8	16.0
9	13.9	15.6	17.5	14.4	22.1	10.0%	10.9%	11.0%	13.4%	13.9%	9.3	10.4	10.8	13.6	14.1
8	14.5	15.9	16.7	13.4	22.6	9.9	10.0	10.3	12.3	15.6	8.1	10.1	10.5	12.5	14.0
7	13.4	13.7	14.9	12.5	17.8	8.5	8.4	9.7	10.6	11.3	8.9	9.2	9.6	11.5	12.1
6	7.3	7.3	8.3	7.8	9.1	6.4	6.6	6.7	6.9	7.6	6.0	5.9	6.4	6.6	7.0
5	7.1	7.8	8.3	7.3	9.3	7.3	6.8	6.7	7.6	8.3	6.1	6.3	6.2	6.4	7.2
4	7.0	7.2	7.4	8.0	8.6	6.8	6.4	7.0	7.6	7.8	6.3	6.1	6.3	6.5	7.0
3	6.2	6.9	7.3	7.0	8.8	7.0	6.9	7.3	7.1	7.3	6.3	6.1	6.3	6.2	6.8
2	8.1	8.0	8.2	7.0	8.5	7.7	7.3	7.8	7.6	7.7	7.2	7.0	6.9	6.7	7.4
1	10.1	10.2	11.2	8.2	10.9	9.7	9.7	9.8	9.2	9.4	9.1	8.4	8.3	7.7	8.1
Average*															
1-9	9.7	10.3	11.1	9.5	13.0	8.1	8.1	8.5	9.1	9.9	7.5	7.7	7.9	8.6	9.3
10-12	9.7	11.5	12.6	15.4	22.9	----	----	----	----	----	7.7	8.8	9.5	12.9	13.8
All	9.7	10.9	11.9	12.5	15.5	----	----	----	----	----	7.6	8.3	8.7	9.7	10.4

*Unweighted.

250 names! If the student is not detected, he appears to be absent when in reality he merely missed homeroom.

A full discussion of the appealing intrigue that the above practice has for the younger teenage pupil would be beyond the scope of this report. Suffice it to say that anyone who knows this age groups can appreciate their "thrill of fooling the establishment," which almost guarantees perpetuity of this practice.

Nor is this report an appropriate place to discuss the administrative problems inherent in attempting to extend the pupil accounting procedure to a point where no student could escape. The law of deminishing returns applies here. How much instructional time can be spent in an effort to apprehend the tardy pupil? Some feel too much time is being wasted on administrative detail already.

SUMMARY

Absence in secondary level target schools showed an alarming increase for 1968-69. Although it is fairly obvious that much of the reported absence is due to an easily circumvented pupil accounting system commonly used in secondary schools, there is little doubt that absence rates are increasing, there are many known reasons e.g., fear, safety, revolt, tuned out, etc., since the same accounting system has been in use for many years.

CHAPTER 10

DROPOUTS: A PREVIEW

We defined:

(1) the term "dropout;"

(2) the term "dropout rate;"

(3) some problems involved with labeling a child a dropout.

We found:

(1) an increase in dropout rates for grades 7 through 10 in target schools;

(2) a decrease in dropout rates for grades 11 and 12 in our one target senior high school;

(3) a more meaningful way to look at dropout rates may be to examine a particular class through the years rather than to compare overall results of grades year-by-year.

CHAPTER 10

DROPOUTS, 1968-69

BACKGROUND

A definition of the term dropout as it shall be used in this report includes any pupil who leaves school before graduation or completion of a program of studies without transferring to another full-time school program. This includes any of the following reasons: government service, pregnancy, illness, work permits, home permits, psychological exclusion, superintendent's expulsion, age beyond compulsary attendance, and the ambiguous category--miscellaneous. It should be noted that this definition includes many students who ultimately do finish high school by attending part-time evening classes; it also includes those students who quit high school but attend various trade schools or military service schools and eventually earn a high school degree or its equivalent. We have no efficient way of determining which of the pupils withdrawn for any of the above reasons ever finishes school, but we are certain that many do.

Dropout rate is computed by dividing the number of such dropouts by the number of pupils for whom the school is accountable (dropouts + end of year membership). This total accountability figure includes all pupils enrolled in a school in a given year except those who have been withdrawn as deceased or for whom it is reasonable to assume that full-time education was continued. Graduating seniors are counted in the twelfth grade end of year membership.

METHOD OF ANALYSIS

The strategy employed for study of dropout rates in previous years is continued in this report. Dropout data are assembled by grade for target and control schools. Comparisons are made of the 1968-69 statistics with those of each of the three previous years of Title I service and with the

two-year baseline period that preceded.

RESULTS

Table 18 shows the dropout percentages for each grade, 7 through 12, for six years in three different groups of schools. All of the rates reported are unweighted means of all grades from all schools in the particular cell, except for target school grades 10-11-12 which reflected only Robert A. Taft Senior High School, the only target senior high school.

The results show an overall increase in dropout rates for grades 7 through 10 in target schools, which is similar to increases in control and system-wide rates. Grades 11 and 12 in Robert A. Taft High School, our only senior high target school, showed an encouraging downward slope; this is the third consecutive year that grade 11 has shown a decline in dropout rate. For grade 12, the dropout rate was nearly reduced to one-half that of 1967-68, but it was still slightly higher than the system-wide rate.

The dropout problem continues to present a discouraging picture for the community. When decreases are happily noted in one year, they are often offset by inordinately higher increases the next. This phenomenon has prompted us to focus our attention upon single classes across the three years at R. A. Taft High School. When the diagonal is added, the resultant sum of the dropout rates for the three years results in a number which we have arbitrarily called "loss function." The loss function (LF) has interestingly remained fairly constant over the four years, 1966 to 1969. (31.8 in 1966; 37.5 in 1967; 39.3 in 1968; 34.8 in 1969). It seems to suggest a different way of assessing dropout rates which we will continue to examine in the future.

SUMMARY

The overall dropout rate continued to rise in the Cincinnati Public Schools. The decrease noted in grades 11 and 12 in target schools, which

Table 18. Drop-Out Rates For Grades 7-12 By School Year Within School Group

GRADE	TARGET						CONTROL						ALL SCHOOLS					
	Base Line	64 65	65 66	66 67	67 68	68 69	Base Line	64 65	65 66	66 67	67 68	68 69	Base Line	64 65	65 66	66 67	67 68	68 69
12	6.2	9.1	6.2	7.8	11.5	5.9							4.3	4.1	4.7	4.8	5.5	5.7
11	11.0	13.0	13.7	17.1	14.4	13.5							6.2	6.0	8.2	10.2	8.3	9.4
10	12.6	16.0	10.7	14.5	11.5	15.1							7.3	7.1	9.1	10.3	7.7	11.5
9	9.1	8.9	10.4	11.1	5.5	7.6	6.8	6.8	7.3	7.5	4.5	4.4	6.1	5.4	6.4	6.7	3.6	6.3
8	5.0	5.7	4.9	5.2	2.6	3.2	3.5	2.9	3.9	4.0	1.8	3.0	3.1	3.0	3.1	2.8	1.6	2.9
7	2.0	1.7	2.0	1.2	1.0	2.3	1.8	1.7	1.2	1.8	1.4	0.7	1.5	1.1	1.1	1.2	1.0	1.3
UNWEIGHTED MEANS																		
7-9	5.4	5.4	5.8	5.8	3.0	4.3	4.0	3.8	4.1	4.4	2.6	2.7	3.6	3.2	3.5	3.6	2.1	3.5
10-12	9.9	12.7	10.2	13.7	12.5	11.5							5.9	5.7	7.3	8.4	7.2	8.9
TOTAL	7.6	9.1	7.9	9.5	7.8	7.9							4.8	4.5	5.4	6.0	4.6	6.2

represents only one high school, is encouraging but it must be viewed in perspective. The data seemed to suggest that a more meaningful way to view dropout rates is to examine a single class across the years (diagonally).

CHAPTER 11

PROGRAM EVALUATION

CONCLUSION (1968-69)

As one part of the end product of Title I activities in the Cincinnati area, we have a series of seemingly unanswerable questions. Some of these are:

1. What would be the condition of our seriously disadvantaged children, our target schools, and our inner-city if we had not had the additional help that ESEA Title I services offered? This question and its mute answer cannot be analyzed statistically; it cannot be proved; perhaps it cannot even be posed as a logical question, and yet its logical answer is the very sustenance of the Title I program.

2. How important is improved performance on tests of academic achievement? Aside from the statistician, who can detect the difference between second grade students who score 13 and those who score 15 on the California Achievement Reading Comprehension subtest? Statistically, the grade placement is 2.8 and 4.0, respectively, realistically, if there is a difference, it is barely noticeable. The very assumption that there is a meaningful correlation between test results and external behaviors is open to question.

3. Similarly, is the student who was absent 150 days a greater attendance problem than the student who missed 100? Is either of them any better than the student who "dropped-out" of school completely?

4. Can we realistically expect to change some of the basic characteristics of the sample population merely by adding a rather small number of teachers and counselors, however dedicated?

5. Are the questions which we have tried to answer in our evaluation reports the most important questions, or are they secondary to such items as self-confidence, self-respect, and hope?

The other parts of the end product of Title I are a mixture of frustration and success:

1. The high mobility of project students frustrates most long-range longitudinal studies.

2. The task of adequate design controls and/or control groups makes many results uncertain at best.

3. Success in meeting behavioral objectives is confused by lack of adequate comparison data.

4. Questions of funding jumble the planning of the program development committees.

5. Conflict of "hard statistics" and "testimony" as to the relative success of the program places the question of realistic objectives and comparative success squarely before us.

From this conglomorate of difficulties, however, a more realistic and fruitful phase of Title I seems to be emerging. The glittering generalities so common is early proposals and evaluations are gradually being replaced by a Stoic acceptance that any significant uplifting of the disadvantaged is, at best, going to be difficult, long-range, and expensive in both finances and human resources. With the experience of four years helping us, an air of professional confidence has begun to permeate the Title I staff. We have made significant progress in identifying what needs to be done; experience has given us some insight as to ways in which we may be successful in accomplishing our goals; hopefully, within the next four years we may be able to develop a program that will consistently effect significant positive changes in all subjects who are exposed to it.

APPENDIX A.

Appendix A. Means and Variances of Factor Scores of Teacher Survey Within Three Groups, Eight Factors, Four Years.

GROUP	1965-66								1966-67							
TITLE	F_1	F_2	F_3	F_4	F_5	F_6	F_7	F_8	F_1	F_2	F_3	F_4	F_5	F_6	F_7	F_8
I	5.22	3.22	3.83	4.57	5.13	4.60	5.22	3.86	5.38	4.02	3.95	4.65	5.25	6.11	5.78	4.36
TARGET (12)	.32	.24	.41	.26	.30	1.41	.46	.74	.16	.20	.13	.14	.16	.24	.16	1.01
II	5.19	2.98	3.52	3.73	5.01	3.72	5.22	4.01	5.35	3.67	3.86	4.16	5.03	5.83	5.41	4.52
ST->T (5)	.88	.36	.32	.08	.42	.82	.80	1.32	.64	.22	.60	.20	.40	.16	.42	1.72
III	5.15	2.74	3.60	3.51	4.62	3.66	4.79	3.60	5.38	3.52	3.90	4.01	4.88	5.66	5.30	4.15
CONTROLS (14)	.17	.23	.25	.18	.13	.88	.34	.86	.40	.34	.50	.44	.28	.63	.30	.77

(Continued)

Appendix A. (Continued)

GROUP		1967-68								1968-69							
TITLE		F 1	F 2	F 3	F 4	F 5	F 6	F 7	F 8	F 1	F 2	F 3	F 4	F 5	F 6	F 7	F 8
I	$\bar{x}$	4.79	3.26	3.60	3.95	4.71	5.85	5.46	3.82	4.64	3.81	3.72	4.41	4.67	5.34	5.22	3.88
TARGET (12)	var	.43	.27	.08	.30	.30	.31	.24	.52	1.63	.25	.31	.07	.16	1.45	.13	.68
II	$\bar{x}$	5.35	3.44	3.90	3.97	4.95	5.94	5.57	4.49	5.34	3.42	4.35	4.47	4.71	5.75	5.36	3.88
ST->T (5)	var	.38	.10	.58	.16	.36	.10	.40	1.02	.14	.02	.84	.20	.10	.16	.22	.92
III	$\bar{x}$	5.05	2.87	3.78	3.68	4.52	5.76	4.91	3.86	4.98	2.83	3.73	3.82	4.34	5.53	4.82	3.75
CONTROLS (14)	var	.58	.21	.43	.51	.40	.22	.44	.94	.63	.53	.28	.16	.28	.16	.34	.81